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Interlibrary Loan in New York State; A Report Prepared for the Division of Library Development of the New York State Library.

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Discussed in this report are: (1) the current operations of the New York State Interlibrary Loan Network (NYSILL), (2) the role this network plays within the overall context of interlibrary borrowing and lending in the state, and (3) the possibilities for future development of these services. In addition to reviewing the projects, NYSILL is evaluated by examining other interlibrary loan systems and resources to establish the framework in which NYSILL operates and by studying the implications of NYSILL's modifications of the traditional procedures of interlibrary lending. Topics covered in the report include: the development of requests, the operation of the NYSILL network, regional networks and direct academic service, NYSILL and library technology, and interlibrary loan in New York State. It is concluded that NYSILL has fully demonstrated its value to library patrons, and it is recommended that the program be made one of the permanent reference and research services provided by the state. It is also concluded that the two regional interlibrary loan systems funded by the state at Buffalo and Rochester are complimentary to NYSILL and have proved to be successful, and it is suggested that these networks also be permanently funded. Appendixes include details on the library survey and the analysis of interlibrary loan requests, an interim report on phase I of the project, and a 79-item bibliography. (Author/JB)

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INTERLIBRARY LOAN IN NEW YORK STATE

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A Report Prepared for the
Division of Library Development
of The New York State Library

Nelson Associates, Incorporated

New York, New York

February, 1969

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February 28, 1969

Miss Jean L. Connor, Director
Division of Library Development
The New York State Library
Albany, New York 12224

Dear Miss Connor:

We are pleased to submit our report on the current operations of The New York State Library's statewide reference and research interlibrary loan network (NYSILL), the role this network plays within the overall context of interlibrary borrowing and lending in the state, and the possibilities for future development of these services. We have concluded that NYSILL has fully demonstrated its value to library patrons, and accordingly this report recommends that the program shed its experimental status to take its place as one of the permanent reference and research services provided by the state.

The two regional interlibrary loan systems funded by the state at Buffalo and at Rochester have also proved to be successful. We find that these small networks are complimentary to NYSILL; they do not supplant it but rather provide much improved service for that considerable portion of interlibrary loan volume which does not require servicing at the statewide level. The regional networks also represent a major step forward from the kinds of local system services previously provided, due to the linkages to university collections. We have recommended, therefore, that the two existing regional networks be permanently funded.

This report, Interlibrary Loan in New York State, departs from a strict review of the state-funded projects in two ways. First, we have examined other interlibrary loan systems and resources, to establish the framework in which NYSILL operates. Second, we have studied the implications of NYSILL's modifications of the traditional procedures of interlibrary lending. Thus, this report attempts in part to evaluate NYSILL as a general information system. Accordingly, it provides some tentative suggestions regarding the long-term implications of such a perspective.

Our major findings and recommendations are summarized at the outset of the report (pp. xiv-xxvi). In addition, a brief overview of the conclusions of the work, with particular attention to policy implications for the State Library, is contained in Chapter X (pp. 201-208).

It has been a privilege to perform this study for the State Library. We have received courteous attention and helpful suggestions from all of those contacted in the course of the work. In particular, we should acknowledge the assistance of the Division of Library Development; of the staff of the Interlibrary Loan Unit at the State Library, which provided much of the data needed for our analyses; of the administrators and librarians who managed the two regional networks; and of other librarians throughout the state who shared their reactions and suggestions about NYSILL's services with us.

If we can assist you with the interpretation or dissemination of the contents of this report, we hope you will call upon us.

Very truly yours,

Nelson Associates, Inc.

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SUMMARY OF FINDINGS

Summarized below are the principal findings of the study.

Finding #1: *The NYSILL program is a logical extension of developments in library services in the nation and in New York State.*

A historical review of NYSILL and other state-funded programs underscores the continuity and orderly development of innovative library services in New York. The growth of new programs has neither been unplanned nor come about all at once; rather, the history is one of gradual progress and consistency with national legislation and professional standards (see Chapter I).

Finding #2: *Overall volume of interlibrary loan in New York for 1968 may be estimated at 640,000 requests, of which about 83% were filled.*

The growth rate for interlibrary loan in this state is about 14% per annum. The great bulk of these requests are sent to public resources: local library systems (64%) or NYSILL (14%). Small but significant differences in volume and success rates may be observed for different combinations of library type, region, and size (see Chapter II).

Finding #3: *Interlibrary loan services are appropriately used in New York. In particular, requests directed to NYSILL referral libraries are of a high level.*

A review of citations for loans in the state shows that requests are effectively screened by the local public library systems, which supply much popular or relatively commonplace material. Requests directed to other resources are of an impressively high level. All libraries in the NYSILL system, including the State Library, supply some fairly rare items as well as more common research materials (see Chapter III).

Finding #4: *NYSILL handled more than 87,000 requests in 1968, a considerable increase in volume.*

A projection of volume in NYSILL indicates that the load of requests will double by 1975 if present growth rates continue (see Chapter IV).

Finding #5: *Sixty-four percent of all NYSILL requests are filled. Rates for eligible requests are considerably higher: in particular, 75% of faculty and 80% of student requests are filled.*

An analysis of outcomes in NYSILL for Fall 1968 indicates that the system presently supplies about 8,900 more items per year than would be expected on the basis of increased use alone. Of these, most are supplied by referral libraries (see Chapter IV).

Finding #6: *Improvements in NYSILL filling rates have come about gradually, and appear to be due as much to better processing and increased experience as to any particular change in procedures.*

The dependence of the system on each of its components restricts the magnitude of improvement which can be made through alterations in any one part of NYSILL. Thus, increased filling rates in the referral libraries will have little overall effect unless the number of referrals also rises. In 1968, both of these conditions were met: the volume of referrals rose to 32% of all requests, and the referral libraries increased their fill rates from 42% to 57% (see Chapter IV).

Finding #7: *All subject fields are treated by NYSILL; the most common ones are medicine, education, and the traditional academic disciplines.*

Each kind of patron in NYSILL tends to concentrate on a different set of subjects. The most common topics are also those with the highest filling rates (see Chapter IV).

Finding #8: *Subject classes differ in reliability of assignment. Two independent classifications showed a high degree of agreement for some topics and a rather low degree of agreement for others.*

The least ambiguous subject classes are education and medicine. The fields of physical science, philosophy and religion, and fine arts are also relatively unambiguous. Subject classifications in the fields of political science, law, geography, and biography are somewhat unrealiable (see Chapter IV).

Finding #9: *NYSILL serves a large number of institutions. More than a quarter of all requests come from small public libraries located in and around New York City. Heavy academic use comes from the area centering on Albany.*

A ten percent sample of requests submitted during October-December, 1968, recorded use by more than 400 libraries. Public libraries were the most common originators of requests, but academic, medical, and commercial libraries also were identified as frequent users (see Chapter IV and Appendix E).

Finding #10: *The New York City region libraries, the biggest single group, submit the lowest proportion of eligible requests, have the fewest referrals, and experience the lowest success rates of any group of libraries using NYSILL.*

This is directly related to the relatively heavy use of NYSILL by public libraries in the New York City metropolitan area. Success rates for public libraries using NYSILL have gone down since 1967, despite an overall rise in the portion of filled requests (see Chapter IV).

Finding #11: *The "urgent" option for medical requests is not heavily used.*

Urgent requests were concentrated in the biomedical sciences, but even among only such requests the option was infrequently utilized (see Chapter IV).

Finding #12: *In general, the request transmission sites with the greatest volume in 1967 are also those with the greatest volume in 1968.*

Within this trend, however, three of the four sites now served by regional interlibrary loan networks have made substantial increases in their volume of NYSILL requests, and the volume at academic transmission sites increased more than did the system as a whole (see Chapter V).

Finding #13: *The State Library is an especially important resource for requests from the Metropolitan New York City Region.*

This same area tends not to use subject referral libraries; the central upstate part of the state also tends not to use the subject centers (see Chapter V).

Finding #14: *The proportion of requests filled by the State Library has risen slightly over 1967 levels to 47% of all items received.*

The State Library fills requests in all subject categories. It is especially strong in education and biography, somewhat weak in psychology and foreign language materials (see Chapter V).

Finding #15: *As a whole, the referral network is especially strong in the biological sciences and in American history, weaker in sociology and in education.*

The area referral centers account for the special strengths in American history, the subject centers for those in the biological sciences. Other special strengths of subject centers appear when area libraries are excluded: economics, foreign language materials, medicine, and law. Weaknesses of the subject centers exist in the fields of classics, fine arts, business, and education (see Chapter V).

Finding #16: *The degree of use of the second referral is about the same as in 1967. However, the pattern of this use has changed, so that subject centers are now likely to receive first referrals, and requests might be referred to a second area library.*

This change in the pattern of service is related to the improvements in both speed and filling rates (see Finding #6, above, and Chapter V).

Finding #17: *Filling rates at individual subject referral libraries are generally good. At area referral libraries, filling rates are lower than in 1967.*

Two subject libraries are exceptions to this trend: New York University and Teachers College, with filling rates of 23% and 18%, respectively (see Chapter V).

Finding #18: *Elapsed time for processing of NYSILL requests has not changed substantially since the Fall of 1967. Over half the time consumed is due to processing prior to receipt at the State Library or to delays in the mail.*

Overall, NYSILL requests average 19 days from initiation to receipt of material at an originating library. Only five of these days are taken up by NYSILL processing, however. For unreferred requests, processing at the State Library requires only two days (see Chapter V).

Finding #19: *Most NYSILL referral libraries come close to, or exceed, the standard of five days' time limit for processing.*

An exception is the Brooklyn Public Library, where the use of two other New York City public resources results in some time delay (see Chapter V).

Finding #20: *Unit costs in NYSILL have been reduced from an average of $15.80 in 1967 to $10.82 in 1968, mostly due to reductions in participation grants.*

Three individual referral libraries have relatively high costs: the American Museum of Natural History, Teachers College, and New York University. At the Museum, expenses are due entirely to effects of participation grants; at the other two libraries, high costs are due both to grants and to a low rate of filling which generates high unit fee expenditures (see Chapter V).

Finding #21: *Analysis of originating library characteristics shows that type, size, and region each have independent effects on filling in NYSILL.*

In contrast, relationships between making book or foreign-language requests and eligibility are largely due to effects of academic patron status, while relationships between verification of requests and academic status are largely due to eligibility (see Chapter VI).

Finding #22: *A preliminary statistical study of effects which could determine filling at the State Library failed to uncover any significant predictors of success.*

This outcome is consistent with the state's policies, and indicates that the State Library serves all patrons about equally well. In particular, reduced success in NYSILL for public library patrons is entirely due to the lower rate of use of referral libraries, and not due to any diminished chances of success at Albany (see Chapter VI)

Finding #23: *Even allowing for effects of eligibility, academic patron status is still positively related to success in the use of referral libraries.*

Both eligibility and the use of the State Library mediate these effects, however (see Chapter VI).

Finding #24: *Academic patron status has no effect on speed of service, when eligibility of requests is taken into account.*

Eligibility and filling of requests at the State Library are the two crucial factors affecting elapsed time (see Chapter VI).

Finding #25: *It is possible to account for a substantial amount of the variation in both overall processing speed and successful use of the referral libraries by reference to a relatively simple set of causal factors.*

A quarter to a third of the differences in speed and success in referral libraries has been explained; much of the remaining variation may be due to differences in professional ability, subject matter, or chance (see Chapter VI).

Finding #26: *The two regional networks each processed well over 2,000 requests in their first three months of operation. High filling rates were achieved, with reasonable speed and moderate costs.*

At Buffalo 74% of all requests received were filled; at Rochester 87% were filled. Neither figure includes requests bypassing these local systems, however. Overall elapsed times in both networks averaged around ten days. Costs to the State Library for filled requests averaged $5.90 at SUNY-Buffalo, $4.02 at the University of Rochester (see Chapter VII).

Finding #27: *The two regional networks handled requests from all kinds of patrons and for all kinds of materials. The level of filled requests was surprisingly high, especially at Rochester.*

Student requests were a little less frequent at Rochester than at Buffalo. At Buffalo, the volume was split evenly between public and other kinds of originating libraries; at Rochester, the great majority of the requests came from academic or special libraries (see Chapter VII).

Finding #28: *Most filled requests were supplied at Buffalo by the Buffalo and Erie County Library, at Rochester by the University of Rochester.*

At Rochester, five percent of all filled requests came from the use of a want list circulated to other participating libraries (see Chapter VII).

Finding #29: *The volume of requests sent directly to NYSILL referral libraries by academic institutions was not very great.*

Despite the availability of this option, the bulk of state-funded general academic interlibrary loan continued to be directed to NYSILL (see Chapter VII).

Finding #30: *The State Library holds between 10% and 25% of all items requested by use of the direct option.*

The Health Sciences Library at SUNY-Buffalo and the Syracuse University Library were most likely to initiate direct requests to NYSILL referral centers when the State Library would have sufficed (see Chapter VII).

Finding #31: *More than half of all direct requests were sent to Cornell University.*

Other libraries receiving a number of these requests included Columbia University, the New York Academy of Medicine, and The New York Public Library Research Libraries (see Chapter VII).

Finding #32: *Success rates for the direct service were about the same as would be experienced by academic loans routed through normal NYSILL channels. Elapsed times were considerably faster than NYSILL times.*

The improvement in time was mostly due to the bypassing of the State Library, and not due to any special treatment accorded such loans by resource libraries (see Chapter VII).

Finding #33: *Verification statements attached to NYSILL requests are not always as reliable or helpful as they ought to be.*

In general, the quality of the citations provided is much improved. Typographical errors still cause minor difficulties (see Chapter VIII).

Finding #34: *Despite the provision of more detailed status codes, users still report some difficulty in ascertaining what has taken place with their unfilled requests.*

Ambiguities exist in the present codes; in addition, some codes are seldom used (see Chapter VIII).

Finding #35: *Ambiguity about procedures and conventions in NYSILL persists; users, system personnel, and referral librarians do not have the same understanding of operational practices and guidelines.*

A number of persons interviewed stated that increased communication and coordination of the system is a prime need for NYSILL (see Chapter VIII).

Finding #36: *A projection of the volume of filled requests in NYSILL shows that the load will be insufficient for efficient utilization of dedicated delivery services.*

In 1970 the weekly load of filled items is estimated at 1,282 filled requests. When this is broken down into point-to-point delivery requirements on a daily basis, it is evident that volume will not be great enough to warrant a custom delivery service for NYSILL (see Chapter VIII).

Finding #37: *First-class mail provides a viable alternative to book-rate mail, for lighter-weight loans.*

In addition, general delivery companies could effectively speed service at low cost to regions which have effective local delivery systems in operation (see Chapter VIII).

Finding #38: *Despite continual efforts by the State Library to suggest workable TWX formats and train TWX operators, requests continue to be transmitted in a variety of formats.*

These inconsistencies are likely to cause major problems in the automation of NYSILL (see Chapter VIII).

Finding #39: *Along with the improved performance of NYSILL, some requests continue to be unfilled which might have been successfully referred.*

Ambiguity of subject assignments and the difficulties of locating the best referral library appear to be the major problems to be overcome in attaining further improvements in success rates (see Chapter VIII).

Finding #40: *Many operational problems in NYSILL can be traced to the difficulties inherent in maintaining any kind of manual record-keeping system at the State Library.*

These difficulties have nothing to do with the effort of system personnel; rather, the nature of NYSILL is such that no manual record-keeping system is likely to avoid time-consuming delays and occasional errors (see Chapter IX).

Finding #41: *NYSILL operates on premises which represent a distinct departure from some traditional interlibrary loan practices.*

These differences help explain the differing reactions found to NYSILL among various kinds of librarians. A preliminary analysis of such theoretical premises assists in explaining some basic characteristics of the system and in suggesting ways in which future developments might lead (see Chapter IX).

Finding #42: *One likely next step after automation of the administrative record-keeping function of NYSILL is automation of the routing process.*

A record-keeping computer system will provide a good deal of the framework needed to go much further. One of the reasons why routing may be easily automated is that NYSILL does not depend on the existence of specific bibliographic reference tools (see Chapter IX).

Finding #43: *Multi-library interloan systems are growing at an extremely rapid rate.*

The existence of these systems implies that NYSILL must begin to plan for coordination and mutual assistance (see Chapter IX).

Finding #44: *A review of both NYSILL experience and of relevant scholarly literature indicates that existing interlibrary loan services do not necessarily meet all kinds of patron needs.*

Future developments of NYSILL might be expected to lead in the direction of filling such gaps (see Chapter IX).

SUMMARY OF RECOMMENDATIONS

Summarized below are the principal recommendations that the investigations of this study support.

Recommendation #1: *NYSILL should be funded as an on-going system, not as an experimental program.*

The data in this study affirms the success of the NYSILL program. Of course, there are some problems that have yet to be solved. Those responsible for NYSILL's operations should continue to innovate and to seek more effective and efficient procedures for meeting the reference and research needs of the state (see Chapters IV, V).

Recommendation #2: *The State Library should initiate a study to determine the appropriate interfaces between NYSILL and other important information systems in the state either presently operating or planned for the near future.*

The organized interlibrary systems in New York include a variety of present or potential services other than NYSILL: the SUNY-Biomedical network, the Five Associated University Libraries, a proposed Ivy League interlibrary system, and a variety of other specialized services, both regional and national. Unless planning for NYSILL, as well as that for these other services, recognizes the purposes and potential contributions of all systems, it is possible that the future development of these library networks will result in needless duplication. The study of possible linkages among these systems, including consultation with their sponsors and users, would contribute to more effective overall information service and would minimize wasted effort (see Chapter IX).

Recommendation #3: *Automation of the record-keeping and central operations functions of NYSILL should be implemented with all possible speed.*

The automated system presently under consideration at the State Library appears to be entirely appropriate for routing requests, supplying status reports, etc., and should lead to smoother and more reliable NYSILL performance (see Chapter IX).

Recommendation #4: *The State Library should provide more administrative and planning help to NYSILL librarians, and should coordinate the work of the NYSILL referral libraries.*

The time and effort that NYSILL librarians put into serving library patrons should not be diluted by the time now spent on administrative details. Better guidelines, communication, and coordination from the State Library would alleviate many of the problems faced by referral librarians (see Chapter VIII).

> Recommendation #5: *The NYSILL Manual should again be revised, clarifying new procedures to provide a better working tool for both resource librarians and users.*

The State Library's work on the manual to date has been helpful, but many ambiguities and unanswered questions remain. Before a new revision is attempted, suggestions regarding content should be solicited from all cooperating libraries. Additional revisions of the manual will undoubtedly be required in the future (see Chapter VIII).

> Recommendation #6: *A revised teletype format should be adopted for the transmission of all NYSILL requests.*

A format such as the one suggested in Chapter VIII would promote easier handling, more complete records, and the greater consistency necessary for automation. The TWX training courses now conducted by the State Library should be continued, and refresher courses given (see Chapter VIII).

> Recommendation #7: *A more systematic approach is needed to take advantage of holdings data supplied for some loans.*

Better reporting procedures will enable users to know why holdings statements may not have been used,or why requests remain unfilled when such information has been supplied. The accuracy of holdings data needs to be subjected to additional study. Even allowing for occasional error, however, it seems best to allow such information, when supplied for a NYSILL referral library, to override alternative routing procedures (see Chapters VIII, IX).

> Recommendation #8: *The State Library should review the present subject responsibilities of referral libraries, and develop a subject thesaurus.*

A number of disciplines are not assigned to any present referral library; in other cases present subject responsibilities are ambiguous. Referral libraries also may have subject strengths which are not presently used by NYSILL. Thus there is both a need for sharper definition of subjects and a more effective assignment of responsibilities to various participating libraries. The development of a detailed thesaurus, which would identify the NYSILL resources available for a given topic as well as list the responsibilities of each referral library, would be the first step in identifying subjects which have been overlooked and establishing a justification for further developments in NYSILL. Such a thesaurus would also be a useful tool for routing requests, and is a necessary condition for automation of the referral process (see Chapters IV, VII, X).

Recommendation #9: *The responsibilities and functions in NYSILL of the Teachers College Library, the New York University Library and the American Museum of Natural History Library should be reviewed.*

NYSILL does not make sufficient use of Teachers College Library to warrant continuing present arrangements. A major reduction in participation grants and some reduction of the portion of requests held but not loaned are necessary if this library is to continue in the system. At New York University, special problems of facilities, departmentalization, and remote locations necessitate a special review of the role in NYSILL for this resource. A reduction in subject responsibilities may meet present problems, if accompanied by an appropriate reduction in the participation grant. At the American Museum of Natural History, increased use must be made to justify present funding; either increased subject responsibilities or reduced grants are necessary (see Chapter V).

Recommendation #10: *A study of requests sent to state-funded resources at every level should be made, in order to isolate the precise combinations of originating library, subject, and patron status needed to identify requests which could bypass given resources.*

The data in this study clearly show that some requests can be categorized by subject, patron status, etc., to identify those items to be referred to a given level or type of library. To arrive at working procedures, however, additional study will be required, preferably after the review of subject responsibilities for NYSILL libraries (#8, above). First, requests sent to particular local library systems should be examined to determine what should or should not be searched at this level. Second, the experience with direct requests from universities to NYSILL subject libraries shows that some requests can, in fact, be best routed directly to the referral centers. A larger sample of both direct requests and items unfilled by the State Library needs to be analyzed. These efforts would more precisely identify materials which might be routed directly to subject libraries.

Recommendation #11: *The two regional interlibrary loan networks at Buffalo and Rochester should be permanently funded.*

The findings of the study show clearly that both networks do a good job of serving their patrons. At Rochester, materials are often supplied which the State Library might not hold, due to extensive use of the collections of the University. At Buffalo, the character of the requests is more like that of NYSILL, but the heavy use of the large public library at Buffalo serves to effectively speed interlibrary loan service and free State Library resources for use elsewhere. In the long run, additional services of this kind are likely to be useful, but it is specifically not recommended that additional regional networks be established at this time. None of the other regions appear to have either the high-level demand and appropriate university resources shown at Rochester, or the large public library demands and strong public collections shown by Buffalo (see Chapters II, VII).

Recommendation #12: *The State Library should re-evaluate the role of the area referral libraries.*

These middle-level resources are filling smaller portions of requests, partly due to better use of the referral network as a whole and partly due to the existence of the two regional networks. Eventually, the role of area referral libraries is likely to be filled by regional networks or by the State Library. In the interim, performance of the area centers might be improved by investigating their subject strengths, so that they could be used more selectively (see Chapter V).

Recommendation #13: *The academic libraries' direct use of NYSILL referral libraries and the "urgent" option for medical requests should be continued for the present time.*

The provisions for both academic "direct" and medical "urgent" requests are filling current needs, and are in no way overloading the system. The "urgent" option is, in fact, so little used that it might be extended to other subject areas. Once the referral and delivery routines of NYSILL have been accelerated to provide service equal to or surpassing "urgent" and "direct" service, these options may be expected to phase themselves out (Chapters IV, VII).

Recommendation #14: *A thorough professional analysis of requests not filled in the NYSILL system should be undertaken, to serve as an additional planning tool for the State Library.*

It still remains to be determined whether or not requests unfilled after referral could have been supplied elsewhere in the network. A sample of these should be searched at all NYSILL libraries to provide answers to this question. Other factors should be taken into account: subject, patron status, and so on (see Chapters III, VIII).

Recommendation #15: *Photocopy requests should be mailed first-class to originating libraries. To cover such costs, a separate unit fee reimbursement for filled photocopies should be instituted, providing an additional sum for postage.*

Sending lightweight materials first class will save as much as five days' time for the patron, at relatively little cost to the state. The exact average postage supplement to the unit fee reimbursement may be determined in consultation with referral librarians; it is unlikely that this would exceed 10¢ per unit (twelve pages of photocopy at 18¢, less bookrate postage: see Chapter VIII).

Recommendation #16: *The State Library should delay plans for its proposed delivery system until NYSILL volume approaches levels much greater than those which may be anticipated in the next few years.*

At the expected volume levels, the cost of a Thruway delivery service for all filled requests would equal or exceed the cost of first-class mail. Interim assistance for speedier service may be possible through the limited use of general delivery companies (see Chapters IV, VIII).

Part I:

THE BACKGROUND OF THE STUDY

...a coordinated system for collecting and disseminating the information of mankind is needed now in the interest of both higher education and industrial research. Our studies have shown that there are private and public library collections in the State which contain rich collections of the world's knowledge... The resources must be eventually tied together electronically, administratively, and fiscally, so that efficient and rapid transmission of recorded knowledge is possible.

--from the summary of the Report of the Commissioner's Committee on Reference and Research Library Resources, University of the State of New York, December, 1961.

Chapter I

THE DEVELOPMENT OF THE NYSILL NETWORK

The increased concern evidenced in New York for interlibrary loan services may be traced directly to the demands of what has been variously called a "post-industrial society" (Ralph Blasingame of the Rutgers School of Library Science), a "new industrial state" run by a "technostructure" (John Kenneth Galbraith), or a "meritocracy" (Daniel Bell). Whatever the name we assign to it, it is evident that the social order has become heavily dependent on expertise, research, and mass education. Strong resources in these fields have become salient selling points in attracting industry to new regions. At the same time the decentralization of major urban centers has required the distribution of educational services to areas which had relatively little demand for them in the past.

Within this overall trend, the recent proliferation of cooperative ventures by all kinds of educational institutions represents one of the major modes of change which must be assessed. Interlibrary borrowing and lending are the particular forms which are taken up here, but the wider context has been kept in mind as well. Speaking of libraries, Professor Blasingame has observed that "the greatest danger to social institutions is that they will continue to deal with fragments of problems, rather than with whole problems; with surface indications rather than causes; with the interests of their creators rather than with the needs of their clientele." These pitfalls apply as much to interlibrary loan studies as to other educational topics, and they have not been forgotten here.

THE ROLE OF THE FEDERAL GOVERNMENT IN LIBRARY DEVELOPMENT

The New York State Interlibrary Loan (NYSILL) Network, which is the subject of much of this report, is but one phase of library development and planning in the United States and New York State. Library cooperation is not a new concept; many interlibrary cooperatives currently exist in the United States and more are planned for the future. These joint activities take many forms, of which interlibrary borrowing, lending, and delivery systems are probably the most common services provided. The great increase in the number of published and non-published materials, the increased cost of these materials, and the increased demand for library services by researchers, students and the general public has created a situation in which no one library can ever hope to collect everything which its clientele may need. A library can only hope to supply its patrons with the majority of their needs and then locate and borrow items not in its collection. The lending cooperatives which have grown in response to these needs have, in many cases, given rise to union catalogs and lists, cooperative acquisitions programs, cooperative storage, centralized processing, and--with the advent of electronic data processing equipment--information centers.

The federal government has become interested in library development and has provided needed impetus and financial aid. The Library Services Act (P.L. 597, 84th Congress), enacted in 1956 and then extended to 1966, authorized funds to develop public library services in rural areas. In 1965-66 Congress passed several other important library bills which gave further support to libraries. The Higher Education Act of 1965 (P.L. 89-329) authorized grants to institutions of higher education for strengthening college and research library resources, and special purpose grants to help meet institutional, regional or national library needs, either in a single college or in a combination of schools. The Library Services and Construction Act, as amended in 1966 (P.L. 89-511), authorized funds for interlibrary cooperative networks. And the State Technical Services Act of 1965 made funds available to the U.S. Department of Commerce for the wider diffusion and more effective application of science and technology in business, commerce and industry. Technical services include preparing and distributing technical reports, abstracts, tapes, etc., and establishing information centers; providing references to identify sources of expertise; and sponsoring industrial workshops, seminars, and courses to enhance the applications of scientific knowledge. In cooperation with universities, industries, and local communities, the states are to provide these services, using the federal funds to match their own grants.

The main impetus for the recent federal interest in information dissemination, of which interlibrary loan is a part, came with the Report of the President's Science Advisory Committee in 1963, which made several suggestions for the handling of scientific information. The report pointed out the need for governmental concern for non-government communication systems; the need for specialized information centers, central depositories, and mechanized information processing; and the need for uniformity and compatibility among the various networks handling and transmitting information.

Federal agencies are currently distributing bibliographic information through publications such as the National Union Catalog, New Serial Titles, the Monthly Catalog of Government Publications, and through computer-based services such as MARC (Machine Readable Catalog) and MEDLARS (Medical Literature Analysis and Retrieval System). Federal studies are being conducted on the possibilities for data banks for serials publications and technical report literature, and thought is being given to the establishment of a national information network with regional and local sub-systems. As such projects become operational, it will become increasingly crucial for local systems to plan for compatibility and the effective use of these services.

THE ROLE OF THE STATE OF NEW YORK IN LIBRARY DEVELOPMENT

Public Library Systems in New York

At the close of World War II there were over 600 individual and separate public libraries in New York State serving 89% of the New York State population. Approximately 80% of these libraries had budgets of less than $5,000 a year. A state law of 1893 provided $100 in annual assistance to each local library, regardless of size, in addition to some assistance from the Division of Library Extension and the State Library.

In 1945 the New York Library Association requested that the Division of Research of the State Education Department study the present and future status of library service in the state. The resulting report recommended that the state be divided into 15 regions, each composed of several counties totaling at least 200,000 people. Each region was to establish a library service center, maintain large book pools and provide free advisory and technical services. In 1948 one such experimental unit, the only one ever to be established, was set up in Watertown.

The concept of larger library units providing pooled resources and services was not new. It had been tested and found successful in Europe and the United States. New York City had consolidated services and Buffalo and Erie County had recently begun a county library system.

In 1949 Governor Dewey appointed a Library Aid Committee to study the need for state aid to libraries. As a result of the Committee's work, a bill was adopted in 1950, providing state aid to county and multi-county library systems.

This supplied the initiative for the organization of regional systems and placed the responsibility for their formation in the hands of local governments. Two forms of organization resulted from the 1950 bill: consolidated systems, suitable to large cities with central and branch libraries under a single board; and federated systems suitable for county-wide or multi-county library systems, based on the action of boards of supervisors. New York City, Schenectady County Library, and Chemung County Library immediately enrolled as consolidated systems, and the Buffalo and Erie County Library as a federated system. By 1958 there were eight library systems in the state.

In 1958 a revised Education Law was enacted which permitted associations of libraries to start cooperative systems in which each member library would retain its local autonomy. State aid to systems was also increased, and by 1965 there were 22 library systems serving 97% of the population.

The 3R's Program

The New York State Education Department next turned to the problem of providing reference and research library service to the state's research community. The library needs of scholars, students, researchers, business and industry, it was realized, could not be met by public library systems alone. Research needs had to be met by a combination of academic, public and special library services.

In March 1960 New York State Commissioner of Education James E. Allen appointed a committee composed of 20 members representing business and industry, government, libraries, and higher education, to study the problems of research library service. After nearly two years of work, in December 1961 the group presented its findings in the "Report of the Commissioner's Committee on Reference and Research Library Resources."

The report addressed itself to two major problems: the need for a total coordinated reference program which would include college, university, public, private and special libraries; and the need to make use of local resources. To guide future development, the Committee recommended the establishment of a Board of Regents of a State Reference and Research Library Resources Board, which would determine policies at the state level and coordinate the regional programs. The Committee further proposed a network of regional reference and research library systems to give proper attention to the special interests and problems of each geographic area and to utilize local resources. A formula for state support to aid the development of the program was also recommended.

A legislative bill embodying these recommendations was introduced into the state legislature each year from 1961 through 1964, but was never passed. In 1965 the first Governor's Conference on Libraries recommended the passage of the bill and the appropriation of $700,000 to initiate the reference and research library program. Although again the bill was not passed, the recommended $700,000 for 1966-67 was appropriated, and the 3R's program was inititated.

The main purpose of the 3R's program was (and is) to provide access to advanced reference and research library materials for college faculty members and students, graduate students, industrial and scientific researchers, other scholars, physicians, lawyers, artists, writers and other professional people. No one library could be expected to supply all of the necessary research material for such patrons, but the regional 3R's program of coordinated networks of academic libraries, special libraries, and public library systems would be able to provide most of the necessary reference and research resources.

Along with the 3R's programs, the New York State Technical Services program, administered by the New York State Department of Commerce, helped improve the dissemination and use of scientific and technical information to industry and commerce. This program resulted from the availability of federal funds for technical services, as indicated above. The information is to be disseminated by one or more participating institutions in seven geographic areas. The Technical Services program thus has far-reaching implications for libraries, including common goals with the 3R's program: providing better information reference and resources for the patron.

NYSILL, Phase I

With the establishment in New York of public library systems, the 3R's Regions, and other programs based on federal legislation and funds, the New York State Library began planning for more access to reference and research materials to all qualified New York residents. Even with good public libraries, and Reference, Research and Resources (3R's) Councils being formed throughout the state, many needed materials were not accessible to library patrons. In an effort to open more reference and research sources to its public, the State Library began to plan a statewide interlibrary loan network as part of its continuing support and development of the 3R's program.

In January 1967 the Division of Library Development of the New York State Library announced an experimental interlibrary loan program which provided for a network of resource libraries with the State Library as the coordinating agency. Communication between libraries would be by teletype (TWX). Resource institutions would be paid for their services, and an experiment in the transmission of library materials by remote copying (facsimile transmission) would be carried out as part of the program. Details of the state's original announcement are summarized in Exhibit 1.1.

The pilot project of the New York State Interlibrary Loan Network (NYSILL) began on March 22, 1967. It was thought that as many as 50,000 items might be referred in the first year. The New York State Library contracted with three major public libraries (Brooklyn Public Library,[1] Buffalo and Erie County Public Library, and the Monroe County Library System) and eight subject referral libraries (Columbia University, Cornell University, Engineering Societies Library, Teachers College, Metropolitan Museum of Art, New York Academy of Medicine, New York Public Library Research Libraries and Union Theological Seminary). A ninth subject referral library, New York University, was added on September 21, 1967.

The pilot project of NYSILL generally followed the principles of the State Library's January announcement. Nelson Associates was asked to monitor and evaluate Phase I of NYSILL from March 22, 1967 to November 21, 1967. The objectives of the study were to analyze and evaluate the pilot experience and ascertain the feasibility of an ongoing expanded statewide interlibrary loan network; to suggest revisions to network design and operations; to determine the degree of success in filling requests among the participating libraries; to ascertain the equity of the library's program for financial remuneration; to determine to what degree NYSILL assists the interlibrary loan requirements of medical libraries in the state; and to study the characteristics and quantity of interlibrary loan transactions of college and research libraries outside of NYSILL.

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[1] Since Brooklyn had an existing clearinghouse operation with The New York Public Library Circulation Department and The Queens Borough Public Library, no separate contracts were signed with those two institutions.

A report, evaluating the NYSILL pilot program, was issued in March 1968 and presented findings and recommendations. Summarizing these: from March 22 to November 21, 1967, the State Library received approximately 46,000 requests, of which 98% were received via teletype. Between one-third to one-half of all requests were categorized as "ineligible" for referral beyond the State Library. Of the 43,223 requests analyzed, 55% were filled with the State Library filling 44% and referral libraries filling 11%. A total of more than 11,000 items were sent to the referral libraries--a substantial number but considerably short of expectations. Overall elapsed time from the patron request to receipt of material averaged 22 days. Performance of the network was somewhat better than this figure would indicate, however. More than a third of this time was consumed by local efforts to fill the requests, and actual time from receipt of a request at the State Library to receipt of material by patrons declined to about an average of about 12 days by the latter half of 1967.

Analysis of these requests indicated that academic patrons--faculty and students--accounted for 41% of all requests and that material was requested primarily for academic course work, independent research and for professional or business activities. The majority of the requests originated at public libraries. An analysis of a sample of eligible requests that the State Library had been unable to fill indicated that 28% of the materials requested were suitable for purchase by the State Library, and another 28% were suitable for purchase by public libraries.

It cost an average of $15.80 to fill a referred request, a figure which includes both unit fees and participation grants. The unit fee of $2.00 for each filled request adequately covered such costs at each library. At all but two of the libraries, both subject referral centers, the fee for handling a referral (whether filled or not) also seemed adequate.

NYSILL had little effect on the interlibrary loan practices of colleges and universities in New York City, on technical, special and graduate schools, and two-year colleges, but upstate colleges and

Exhibit 1.1. Original Specifications for the New York State Interlibrary Loan Network (NYSILL)

A. Features of a network of referral with the State Library as the switching center for all requests:

1. Readers were to request materials at their public, academic, or special library.

2. Requests not filled at the local public library were to be searched at the appropriate local public library system; college and special library requests were to be screened through the 3R's system when feasible.

3. Requests not filled at the local or system level were then to be sent to the State Library, which was to serve as a network switching center and clearinghouse.

4. If the request could not be filled at the State Library, it would be referred to one of three major public libraries for backstopping interloan service (area referral centers).

5. If the request could not be filled at the backstopping library, the State Library would then refer the request to one of eight subject referral centers, to be selected from the several public, university, and other private libraries in New York with collections of national or international reputation.

6. If the request was not filled at a first subject referral center, the State Library might refer it to another.

7. If still unfilled the request would be returned to the original library for further search through other sources.

B. Provisions for funding of these services:

1. Contracting institutions (the referral libraries) were to receive a participation grant; these ranged from $3,500 to $10,000.

2. Subject centers were to receive additional unit fees of $2.50 for each request received, and $2.00 for each request filled. Area referral centers received $1.00 for each item received and $2.00 for each item filled. Payments were to be limited to requests channeled through the State network only.

3. To facilitate communication, the State was to assume the costs of installing and operating a teletype station at each referral library.

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Exhibit 1.1
(continued)

C. Specific guidelines: responsibilities of the participants:

1. Contracts would be for one year; at the end of the first six months, both the State Library and the participating institution would have the option to terminate.

2. Referral libraries were not to be asked to photocopy more than 24 pages of copy, and were permitted to charge patrons whatever they might usually charge for such copying.

3. Referral libraries were to retain the right to set their own limitations on the nature and number of materials to be lent, and to decide to send a copy rather than an original. They were not expected to mail materials to readers living within approximately 60 miles of the center, unless it was their present policy to do so, or unless there were extenuating circumstances such as physically handicapped patrons.

4. Each referral library was to designate a professional librarian to act as a liaison with the network. Each library was to keep such statistics and records and the State Library might request, in order to evaluate the project and monitor costs.

5. Payments were to be made as follows: participation grants were made on signing of a contract, unit fees were reimbursed quarterly. Participating institutions were free to spend the funds received as they chose.

6. An accepted code for interlibrary loan was to be further refined and developed as part of the project. At minimum, current fiction, ARCO-type books, textbooks, children's books, paperbacks and new books in popular demand could not be sent into the NYSILL referral system, although the State Library would continue its general loaning service at Albany.

universities were more prone to use NYSILL. Only one-third of the academic users expressed satisfaction with NYSILL service, and many schools indicated that NYSILL had no effect on their out-of-state and in-state borrowing. Some schools said that they had switched to non-participating libraries to avoid using NYSILL. In all, institutions of higher education in the state borrowed at least 36,310 items through interlibrary loan in 1967, of which 9,737 were borrowed from out-of-state and 11,306 through NYSILL.[2]

Most librarians at the 12 referral libraries felt that the NYSILL program should be continued, but complained about garbled teletype messages, incomplete or incorrect citations, and requests for inappropriate kinds of materials (e.g., requests for books on karate sent to Columbia University). The complaints from requestors centered on the slowness of the system and on the lack of status reports from the State Library on requests they submitted.

The study concluded that the operations of NYSILL through November 21, 1967 had not established the inherent value of this particular reference and research interlibrary loan concept. However, NYSILL could continue to be a source of the data and expertise which is essential for planning long-term development of cooperative programs. With this in mind, the report recommended the continuation, on an experimental basis, of the NYSILL program for one year. Suggestions for improving the performance of NYSILL were made and included recommendations that academic libraries be permitted to bypass the network, that control procedures be tightened, and that better reporting systems be established. (see Exhibit 1.2).

The report also raised several issues which had not been resolved with the available data. First, it could not be determined with certainty whether it would be faster to hold requests owned by the State Library but out on loan, and wait for the material to be returned, or to immediately refer such requests into the network. Second, the kinds of materials which could not be located at all in the network might be too ephemeral for referral, or referred to the wrong referral library, or simply not held anywhere in the state--which of these applied most often was simply not known. Third, some items filled after several referrals could have been filled sooner if the right library could be identified, with consequent advantages in speed and cost--but how to do this without a union catalog presented problems. Finally, the State Library and the nine 3R's Regions could make good use, the report said, of an investigation of the volume of academic, commercial and industrial interlibrary

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[2] Figures for 101 schools responding to a 1967 survey on interlibrary loan. This is a serious underestimation, due to the impossibility of weighting replies to the 1967 survey. Compare data in Chapter II, Table 2.2.

Exhibit 1.2. Revisions in NYSILL Network

Procedures Suggested by the First Monitoring Study

1. Academic libraries should be able to borrow among themselves without necessarily using NYSILL. To this end, the funding procedures would have to be modified, to prevent penalizing referral centers for handling items which otherwise which would be NYSILL requests and as such funded by the state.
2. The use of the secondary referral network at Brooklyn, in which unfilled items were also sent to the New York Public Library circulation libraries and the Queens Borough Public Library, should be discontinued as it appeared to be too time-consuming.
3. Contracts should not be renewed with Teachers College and the Metropolitan Museum of Art, as volume did not appear to justify these arrangements.
4. More explicit definitions of eligible requests should be devised, and eligible items should receive professional screening at the State Library.
5. A system for giving priority attention to urgent requests should be devised.
6. The State Library should provide a status report for unfilled requests, indicating where these were sent and what outcomes applied to each.
7. Contracts with referral libraries should specify the amount of time in which a request should be filled or reported unfilled.
8. The State Library should establish a procedure for the review of items not held by the network or by its own collections, for the purpose of guiding the development of holdings in the State.
9. A standardized format for transmittal of loan requests by TWX should be devised; punched paper tape should be used to store messages, so that errors of copying could be reduced.
10. Requests should be precoded for referral routing at the State Library, and then sent directly from one center to the next.
11. A directory listing all libraries using NYSILL should be issued and regularly updated.

loans handled outside of NYSILL. This would make it possible to better determine the fit of NYSILL into overall interlibrary loan patterns in the state.

The New York State Library Facsimile Transmission Program

In conjunction with the NYSILL pilot project, the State Library initiated on January 20, 1967 another pilot project in the facsimile transmission of library materials (FACTS). The project was to determine whether facsimile transmission, in which material is scanned, transmitted via telephone cables, and remotely reproduced, was a technically and economically feasible method for the improvement of conventional reference and research interlibrary loan. The objective was to provide researchers with rapid access to major resources in the state via a network of facsimile transmission devices.

Two evaluations of the FACTS program were commissioned by the State Library: a technical evaluation and an assessment of the service merits of the FACTS program. Subsequently the State Library asked Nelson Associates to prepare a summary report of the FACTS program, updating the analyses presented in the earlier report and presenting the entire project experience from January 20, 1967 through March 31, 1968.

It was recommended that the FACTS program be terminated. This recommendation was based on both technical and economic findings and conclusions. The network was generally underutilized; the cost of each transmission was economically prohibitive; the quality of the facsimile copy was poor; and it appeared that FACTS was to some extent misused as a substitute for adequate local library collections.

Further Developments in NYSILL

The Division of Library Development conducted a series of five meetings in the spring of 1968 to discuss the NYSILL report and gather reactions to the program. The discussions at these meetings and the written comments submitted by librarians show that NYSILL had won acceptance by New York libraries and that interest had been generated in the continuation of this interlibrary loan network. The sentiments most frequently expressed were the desire for more regionalization and a larger role for the 3R's Regions in NYSILL, along with a desire for regional bibliographic centers, union lists, and data banks.

The slowness in filling requests and the need for correct bibliographic citations, for a time limit for filling requests, and better reporting were mentioned again and again. Many favored the establishment of priorities for some requests, such as "rush" or "urgent"; direct borrowing among academic institutions was supported; medical and special libraries felt they should be permitted to borrow directly from resource libraries; a speedy delivery system was stressed; and a desire for more subject referral centers was brought up.

The adequacy of payment for searching and filling requests was questioned, as well as the propriety of restricting some materials and patrons from NYSILL. It was felt that the State Library should act as a backstop for heavily used materials, while at the same time conducting studies to ascertain gaps in collections and methods of filling these gaps.

This first report, as mentioned previously, covered the operations of NYSILL from March 22, 1967 through November 21, 1967. It was felt that a continuous record of Phase I of NYSILL should be maintained. Therefore, the State Library requested Nelson Associates to update statistics and identify any significant trends through June 21, 1968. An informal report covering this seven-month period was prepared and submitted to the State Library in October 1968, discussing trends in the operation of NYSILL. It was found that the volume of requests was increasing, but that the increase consisted mostly of items not eligible for referral. In this seven-month period there was no change in the type of patron or in originating libraries. The State Library continued to fill approximately 44% of the requests received, but sent a larger number of the remainder to referral centers. The use of subject referral centers for first referrals increased and the referral network as a whole filled more of the requested items, filled requests more quickly and operated at a reduced cost. On the whole, then, the performance of NYSILL during the first half of 1968 showed improvement and indicated a favorable outlook for the months to come.

NYSILL, Phase II

On May 30, 1968, The New York State Library announced that the NYSILL experiment would be continued after July 1968, with some modifications based on the recommendations presented in the Nelson report and on ideas expressed by interested librarians. Phase II of NYSILL was intended to provide more convenient and faster service and to make fuller use of existing resources, while preventing an overload on a few libraries. NYSILL, with its compensation features via unit fees, had had the effect of forcing libraries to use the system so that resource institutions could take advantage of reimbursement. With Phase II, academic institutions with collections of one million volumes or more were permitted to borrow directly from subject referral libraries, with compensation to the resource just as if NYSILL had been used. Copies of such direct requests had to be submitted to the State Library to insure compensation to the referral library and for evaluation of the nature of these requests. The subject referral libraries were to notify the State Library if these requests were filled.

The contract with the Metropolitan Museum of Art, as a subject referral library, was not renewed (as recommended by the Nelson report).

The contract with Teachers College was renewed for six months. In addition, a new contract was made with the American Museum of Natural History as a subject referral library with responsibilities for biology and botany. Brooklyn was to continue the use of NYPL and Queens as secondary resources for its loans.

In an effort to provide faster service, the State Library was to precode referrals. This means that requested materials were to be searched at the State Library and those items not in the library were to be coded for referral through the network. If material was not available at one referral library it was to be forwarded directly on to the next institution rather than returned to the State Library. Each referral library was to report the status of each request to the State Library. To further assure faster service a new clause was written into the contracts with referral libraries, which required them to report the status of requests within five days or not be compensated. On an experimental basis any requests deemed "urgent" by the medical profession were to receive top priority.

To facilitate the referral process, new teletype machines were installed providing paper tape capability. These tapes served to store the TWX input to the State Library; in referring a request, the tape would be re-run, thus reducing transmission error and operator effort. A format for teletyping interlibrary loan requests was prepared and a short instruction course for teletype operators was offered by the State Library.

To speed delivery of materials from the State Library to the regions, the feasibility of a daily trucking service along the Thruway to connect with regional delivery systems was to be explored. In addition, the Division of Electronic Data Processing at the State Library began the design of an automated system to speed the handling of requests. To clarify operational procedures, a revised NYSILL network manual was completed and distributed in July 1968. The manual described the NYSILL network, its policies and programs, the new modifications, and provided a directory of contracting libraries.

During Phase II medical library needs were to be served by the Medical Section of the State Library and by the New York Academy of Medicine. At the same time a continuing investigation would be made of the implications for NYSILL of the SUNY Bio-Medical Communications network and the National Library of Medicine regional program. All aspects of the interlibrary loan program, such as the type of materials requested but not filled, the nature and volume of interlibrary loans handled outside of NYSILL, the speed and costs of service, the ability to meet academic and special library needs, and the success of the regional programs, were to be studied.

It was the intention of the State Library that Phase II of NYSILL would provide improved interlibrary loan service, particularly to the research community, and that new information would be collected which would lead to the design of an optimal referral network.

The Experimental Regional Interlibrary Networks

As part of the refinement of interlibrary loan service in New York, the State Library decided to fund two regional ILL networks as part of the NYSILL Phase II modifications. These regional experiments are related to general developments in recent years in the library profession. As borrowing has increased, with associated stresses on lending institutions, formal arrangements have been created to control traffic in interlibrary loans.

In 1952 a General Interlibrary Loan Code was adopted by the American Library Association (ALA) which stated that "The purpose of interlibrary loans is to make available for research and for serious study library materials not in a given library, with due provision made by the lending library for the rights of its primary clientele." It is obvious from the foregoing statement that interlibrary loan is not intended to be a casually used resource.

In 1968 the American Library Association approved a new National Interlibrary Loan Code, which again stated that "The purpose of interlibrary loans is to make available, for research, materials not owned by a given library. . ." and further cautioned that "Libraries should exhaust local resources and make an effort to locate copies through the use of bibliographic tools, union lists, and union catalogs."

A model interlibrary loan code for regional, state, local or other special groups of libraries was prepared by the ALA in 1968 and is complementary to the National Interlibrary Loan Code, 1968. The ALA believes that liberalization is needed in interlibrary borrowing and lending, that this should begin first at the state and regional level, and that local, state and regional resources should be utilized more freely than in the past. It is hoped that regionalization will prevent the swamping of a few large nationally known collections. The principal features of the regional code are outlined in Exhibit 1.3.

The 3R's regional interlibrary loan networks were conceived and planned before the new model code was published. Nonetheless, the guidelines which the State Library set forth for the two experimental networks, as well as the whole concept of NYSILL, reflect the principles set forth in the model code.

The two 3R's Regions which would receive grants to conduct the experimental regional interlibrary loan networks were expected to meet certain conditions:

Exhibit 1.3. Features of the ALA Model Regional Interlibrary Loan Code

1. Borrowing is not limited to research purposes.
2. There is no borrower statement--anyone is presumably eligible.
3. Almost anything can be requested, with the exception of a brief list of very basic materials.
4. The responsibility of any library to develop collections adequate to meet its normal needs is stressed; freer interlibrary loan should not diminish local efforts to build resources.
5. Requests to borrow should be channeled through some central agency, often a state library, where requests can be serviced, screened, and the load on other libraries distributed equitably.
6. State funding of interlibrary loan plans is taken into account.
7. Standard ALA forms may be used, but it is likely that most states will use TWX or Telex installations, thereby speeding up procedures.
8. All types of libraries may be included.
9. Participation will presumably be voluntary; contracts for services are foreseen.
10. Agreements or contracts among or with individual libraries are not precluded.

1. A university, which was not a NYSILL referral center, with a collection of not less than 500,000 volumes and 5,000 currently received periodicals, was to be designated as a major resource. The university would be compensated at the rate of $1.00 for each referred request and an additional $2.00 for each filled request.

2. An operational delivery service for the 3R's Region, or one planned for operation by September 1, 1968, had to be available.

3. A regional interlibrary loan network was to be designed.

4. The 3R's Council had to agree to a continuing evaluation by the State Library of the regional program and to publicize the regional interlibrary loan program.

Several of the 3R's Councils submitted formal applications to the Division of Library Development for grants to run such experimental programs. The Rochester Regional Research Library Council and the Western New York Library Resources Council were awarded the two grants for the regional networks. The proposed systems differed substantially. At Rochester the 3R's Council covered the same ground as the local library system (the Pioneer Library System,which is a federation of five individually chartered county systems); at Buffalo the 3R's Council includes three separate library systems (Buffalo and Erie, Nioga, and Chautauqua-Cattaraugus). Because of this situation at Buffalo, coordination procedures for handling referrals from the regional network to NYSILL had to be instituted, where no such steps were required at Rochester.

Another basic difference in the two networks had to do with the routing procedures envisioned. At Buffalo the network was totally centralized; all requests went immediately to the 3R's Council headquarters, where they were routed either to the Buffalo and Erie County Public Library or to the State University of New York at Buffalo. At Rochester, on the other hand, the organization of the system was completely decentralized. Originating librarians sent their requests directly to the referral library which they felt should be used (guidelines were communicated, of course), and when items could not be filled they were sent on to the alternative resource. Only when both the Rochester Public Library and the University of Rochester had failed to fill an item was centralized processing initiated in the form of a want list mailed to a number of other cooperating libraries in the area. Rochester used ALA forms and maintained no centralized records for requests in process. Buffalo designed its own form and used control records to keep track of where an item had been referred and what its status was. Other details are included in the summaries in Exhibits 1.4 and 1.5.

Exhibit 1.4. Guidelines for a Proposed Regional Interlibrary Loan System: Rochester Regional Research Library Council

1. The standard ALA form was to be used to transmit the information needed to handle requests. Additional information to be entered on the form included the specific library being asked to handle the item, whether the request should be forwarded to NYSILL if the regional network could not fill it, and (by resource institutions) outcomes at each stage in the referral process.
2. Requests were classified into "general"--materials in the humanities, social sciences, elementary pure and applied science, and business--and "special"--materials of a highly specialized nature in any field, including medical, technical, scientific, and foreign serials and monographs. General requests were to be sent directly to the interlibrary loan unit of the Monroe County Library System (which handles ILL for all five systems federated into the Pioneer Library System) at the Rochester Public Library. Special requests were to be sent directly to the University of Rochester.
3. Requests not filled at either library were to be incorporated into a "want list" which could be circulated to other participating libraries. Requests not filled in the region were then forwarded to the State Library, if requested to do so by the originator. All participating libraries agreed to process requests within 24 hours.
4. A delivery service was established to speed the interlibrary loan process; some libraries in the region continued to rely on the mail or their own messenger services.

Exhibit 1.5. Guidelines for a
Proposed Regional Interlibrary Loan System:
Western New York Library Resources Council

1. All requests were to be phoned or teletyped into Council headquarters at a scheduled time. A specially designed ILL form would then be filled out and mailed to the Council confirming the request. This form required the date of request and an identification number; full bibliographic information; name and address of the requesting library; and the status of the patron (faculty, student, or other).

2. The Council was to screen all requests and supplement bibliographic information where necessary. It would then refer items either to the Buffalo and Erie County Public Library or to the State University of New York at Buffalo, based on the knowledge of Council personnel of these two collections.

3. After two working days, requests which could not be filled in the region were to be entered into the NYSILL network.

4. Material located locally was to be put into a delivery system (using United Parcel Service) and sent directly to the original library.

OBJECTIVES OF THE PRESENT STUDY

Nelson Associates was again requested by The New York State Library to monitor NYSILL during Phase II, and to submit a report analyzing a number of aspects of the experiment, making recommendations for the future of these programs. In general, the study was to address itself to a detailed review of the performance and operations of the several systems in operation; to examine ILL outside these systems, to see how state-funded projects fitted the overall context of interlibrary borrowing in New York; and to review future potential developments, particularly technological ones, which might affect NYSILL. The detailed objectives are presented in Exhibit 1.6.

The project also included an updated review of the last months of Phase I operations. Findings of this report were summarized above; the document is reprinted in its entirety in Appendix C.

As the work proceeded, the consultants found that certain portions of the objectives deserved a somewhat more expanded treatment than

Exhibit 1.6. Objectives of the Study of NYSILL Phase II

1. Does NYSILL Phase II provide faster ILL service than Phase I? What effects on speed have come about because of revisions in procedures at the State Library, or because of new referral patterns? How does the service compare with that received by direct loan requests to NYSILL libraries from large university libraries? Has the five-day limit on processing time had an effect? What has happened to urgent medical requests?
2. Has daily volume of NYSILL requests increased during Phase II? Is the use of NYSILL by academic and special libraries on the increase or the decrease?
3. Is there any significant improvement in success rates of the system (percent of requests filled), either at the State Library or in other referral centers?
4. How do the costs of filling requests during Phase II compare with those during Phase I?
5. Of the loans submitted directly to NYSILL libraries by large universities: What is this volume? What are the characteristics of these items? Who receives such requests? How many are filled, and how? How many could have been filled by the State Library?
6. What further revisions in the network design and operating procedures may be suggested by Phase II experience?
7. What is the volume and nature of academic and special library interlibrary loan activity in the state which is not channeled into NYSILL? What requests go out-of-state, and why? Could these be serviced in the NYSILL system, and if so, would they be serviced as fast as the outside services provided?
8. What is the nature of requests which remain unfilled after being searched in the NYSILL network? Are these items which the network should be filling, and if so, what changes are required to increase the proportion filled?
9. Can requests be categorized (by patron status, subject area, etc.) in advance to provide for automatic referral to particular libraries?
10. What advantages might result from the State Library's proposed delivery system or by the use of special delivery mail? Would these justify costs?
11. What are the implications for future NYSILL network design of the widespread use of TWX for communicating interlibrary loan requests?
12. Could NYSILL data provide the basis for a data bank of resources in New York?
13. What conclusions may be drawn from the regional experiments? How do they differ in design from NYSILL and from each other? What is the future role of such systems in the state?

was originally implied. In particular, the subject of state-funded ILL had become complex enough to justify the historical review which is contained in this chapter. Treating this material in its overall context and in a single chapter made it possible to simplify later portions of the report. It was also felt that a review of all relevant materials would have some intrinsic value as a summary document. It should be noted that a great number of articles, reports, and monographs were examined in the course of preparing this review, and a list of these will be found in the bibliography in Appendix D.

This study contains other departures from previous reviews. A considerable amount of effort has been invested in the creation of a system for the combined analysis of qualitative and quantitative aspects of loans. The results of this effort will be found in the lists of requests which appear throughout this report as examples of items meeting a given set of conditions (e.g., all referrals filled by a particular library). In addition, relatively sophisticated kinds of multivariate statistical analysis have been used here to pin down the characteristics of loans which contribute to the chances of speedy handling and filling. Details of these procedures will be found in Appendix B.

Finally, a major amount of attention has been given to an examination of the basic assumptions on which NYSILL rests. For the most part, these are assumptions which are held in the library profession about ILL itself. Our findings draw both on the data gathered for this study and on relevant research by sociologists, students of information systems, and librarians. In the main the results highlight ways in which interlibrary loan systems may not meet all the needs which they could, and point out trends which may be operating to broaden the concerns of interlibrary loan in the years to come.

PART II:

THE CHARACTER OF INFORMATION NEEDS IN NEW YORK

> The passion for the survey,
> which has toured our country
> like a plague for a number of
> years, has at last laid hands
> on this group of my fellow
> library workers.
>
> --John Cotton Dana, quoted in
> Tauber and Stephens, ed.,
> Library Surveys

Chapter II

INTERLIBRARY LOAN IN NEW YORK STATE: WHERE IT COMES FROM, WHERE IT GOES

Estimating the volume of traffic in interlibrary borrowing in New York depends on a number of factors, some of them fairly arbitrary. For example, interlibrary loan among public libraries, using a local library system as a switching center, would not be considered by many librarians to be equivalent to borrowing and lending among research or university libraries. The former may be a service which augments collections as well as a means for obtaining specific items for specific patrons; indeed, at the very highest levels some interlibrary loan is of this nature (for example, when it is used to replace missing pages of a monograph or periodical, rather than in response to some definite patron's request). A related problem of definition is that convention which customarily rules out borrowing among the branches of a multi-unit library in counting interlibrary loans. This makes good sense until the library system enters the picture. There is some reason to doubt that interlibrary borrowing among the members of the Nassau Library System is much different in character from interbranch borrowing among different units of the Queens Borough Public Library, except that the former lacks a really large local central collection upon which to draw.

A third problem revolves around operational definitions of interlibrary loan. If a librarian at a special library located in Poughkeepsie makes up a list of items requested by her patrons, and then makes a personal trip to The New York Public Library to obtain these, doing bibliographic searching and checking out items herself, is this interlibrary loan? It would be if this librarian had acquired the same materials by using the mails to transmit an ALA form. Would these cases still be considered interlibrary loan if the librarian mailed in requests for photocopies? If the librarian uses the ALA forms, sends a request off to NYPL, learns the item is not available, and then sends a second form to the Engineering Societies Library, is this one request tried at two libraries, or two requests? Interviews indicate that most professionals would consider this to be one request as long as the librarian continued to attempt to secure the item, but if she gave up and then later on the patron submitted the request again, it would be counted as two requests.

Such considerations indicate how difficult it is to pin down interlibrary loan volume. To get a good estimate of the overall load, it would probably be necessary to establish new definitions and conventions for counting loans, and then send a team of observers into libraries to gather the data firsthand. Such a process would be quite expensive. Sampling would be difficult because existing lists of libraries could not be used (such lists would have to be annotated with other data before an efficient stratified sample could be drawn--the only kind that will work for these purposes).

To obtain this sort of information, the present study settled on a compromise solution. Rather than work with firsthand data, which would be impossibly costly to gather within the context of this project, it was decided to design a questionnaire and accept the problems of interpretation and accuracy which this strategy would create. Next, the questionnaire would be sent to all libraries in the state (with the single exception of school libraries). At the same time existing data on these libraries would be recorded and analyzed so that the returns could be weighted for non-response biases. This last feature of the study plan had additional advantages: it would both provide data on library characteristics for the actual loans to be monitored in the study, and it would serve as a much improved sampling list for future research on libraries in New York.

Additional information about the questionnaire, the list of libraries, and the response to the survey are included in Appendix A. In all, 554 libraries responded, of more than 2,000 questionnaires mailed out. The data for these were weighted so as to approximate the results which would be obtained if all institutions in New York had returned a questionnaire. Separate weights were used for each of 24 different categories of libraries, defined by combinations of

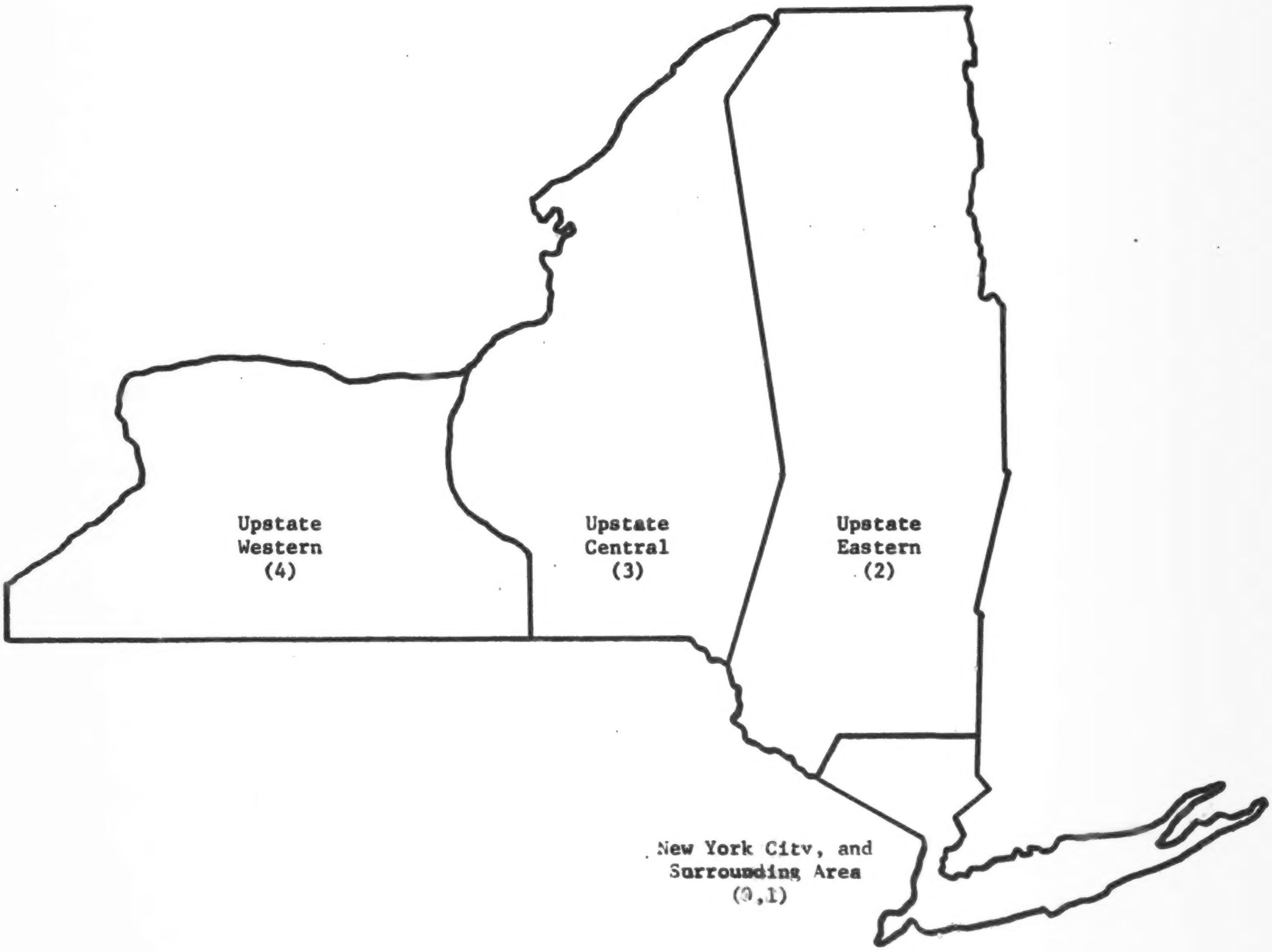
- type: public, academic, law, medical and special;

- size: four classes were established according to volumes held: less than 100,000, 100,000 to 499,000, 500,000 to 999,000 and 1,000,000 or more (the apparent gaps between these classes reflect the fact that data were recorded to the nearest thousand volumes; the last two groups were combined for most of the analysis); and

- geographic region, also divided into four classes: New York City and the surrounding metropolitan area, upstate eastern, upstate central, and upstate western--see Figure 2.1.

Stratifying the returns according to these factors reduced the effect of some of the more obvious kinds of response bias. For example, if large public libraries were more likely to respond, the weights for these libraries were reduced in relation to the weights assigned to other kinds of institutions.

Figure 2.1. Composition of Geographic Regions in New York State (defined by second digit of ZIP code)


Upstate
Western
(4)
Upstate
Central
(3)
Upstate
Eastern
(2)
New York City, and
Surrounding Area
(0,1)

Estimating Total Volume

The questionnaires provided data on overall volume of interlibrary loan for all of 1966, all of 1967, and the first 10 months of 1968. Hence it was necessary to estimate total volume for 1968. Several methods of estimation were devised, and each was tested on existing data to see how accurate predictions would be. For example, estimations were applied to past records of NYSILL volume for the first 10 months of each year, to see how accurately total annual volume could be estimated. The simplest approach was to multiply 10-month figures by a factor of 1.2, thereby approximating 12-months' activity. In effect, this assumes that average monthly volume through October is the same as average volume through November and December. This method was tried on several kinds of data and was found to be a consistently superior method of estimation. Using this approach to obtain total 1968 volume, Table 2.1 was prepared. This presents estimations of interlibrary loan activity in all of New York State for 1966, 1967 and 1968.

It is apparent from these data that the volume of interlibrary loan requests in New York State is increasing each year. In 1967 there were 18% more requests than in 1966, and in 1968 there were 14% more than in 1967. Since filling rates are virtually identical from year to year, the outcomes above apply to filled requests as well. In 1968 there were more than 640,000 requests initiated in New York State; over half a million of these (83%) were filled.

Table 2.1

ESTIMATED VOLUME OF INTERLIBRARY LOAN ACTIVITY
IN NEW YORK STATE
1966 to 1968

Year	Number of Requests	Percentage of Requests Filled	Increase in Volume of Requests from Previous Year
1966	480,520	84%	–[b]
1967	565,506	84	18%
1968	643,568[a]	83	14

a This figure is a 12-month estimate based on data for 10 months of 1968.

b Does not apply.

Different Types of Borrowing Libraries

How do different types of libraries vary in volume of interlibrary loan activity? Table 2.2 provides some preliminary answers for 1968.

Public libraries made three-fifths (61%) of all interlibrary loan requests in New York State. Seventeen percent of all requests were initiated by special libraries, followed by academic libraries (13%) and medical libraries (10%).

This ordering is exactly reversed when considering percentages of requests filled, but the differences are less pronounced. Medical libraries have the greatest proportion of their requests filled (90%) and public libraries have the smallest proportion filled (80%). Academic and other special libraries each have 86% of their requests filled. A range of 10% is not great, and the generally high level of success is the most important finding in these data.

Further refinements in detail are possible. Table 2.3 shows interlibrary loan activity by both type of library and geographic region (New York City and its metropolitan area versus all upstate regions combined).

Table 2.2

ESTIMATED VOLUME OF INTERLIBRARY LOAN ACTIVITY IN SELECTED TYPES OF LIBRARIES: 1968

Type of Library	Number of Requests[a]	Portion of All ILL Requests in New York State	Percentage of Requests Filled
Public libraries	392,189	61%	80%
Academic libraries	81,176	13	86
Other libraries:			
Medical	61,531	10	90
Other special[b]	108,672	17	86
Total	643,568	101%[c]	83%

a Twelve-month estimates.

b Includes law; too few returns to justify separate tabulation.

c Does not total 100%, due to rounding error.

In New York State as a whole the majority of requests were initiated in downstate libraries, although upstate libraries had a higher percentage of requests filled. This holds true for all types of libraries except academic, where the reverse occurs. In all cases the region initiating the majority of requests had proportionately fewer filled.

First considering public libraries in the New York metropolitan area, these institutions initiated more interlibrary loan requests than did the upstate public libraries, but had less success in having these requests filled. In the case of academic libraries, it is the upstate regions which accounted for the greater portion of ILL requests and had less success in having them filled. Medical libraries in the New York metropolitan area initiated slightly more requests than upstate medical libraries. Again the area initiating more requests had a smaller proportion filled. Other special libraries in the metropolitan New York area made more requests than similar libraries in the upstate areas, and once again the region from which most requests emanated had less success in getting requests filled.

Table 2.3

ESTIMATED VOLUME OF INTERLIBRARY LOAN ACTIVITY
IN SELECTED TYPES OF UPSTATE AND DOWNSTATE LIBRARIES: 1968

Type and Region	Number of Requests*	Portion of All ILL Requests in New York State	Percentage of Requests Filled
All New York State			
Upstate	304,499	47%	87%
Downstate	339,069	53	79
Public libraries			
Upstate	178,501	28	85
Downstate	213,688	33	75
Academic libraries			
Upstate	50,721	8	85
Downstate	30,455	5	89
Other libraries			
Medical			
Upstate	25,992	4	93
Downstate	35,539	6	87
Other special			
Upstate	49,285	8	91
Downstate	59,387	9	82

*Twelve-month estimates.

Table 2.4

ESTIMATED VOLUME OF INTERLIBRARY LOAN ACTIVITY IN LIBRARIES, BY SIZE, TYPE, AND REGION: 1968

Type, Size, and Region	Number of Requests[a]	Portion of All ILL Requests in New York State	Percentage of Requests Filled
Public libraries			
Less than 100,000 volumes			
NYC metropolitan	155,782	24	85%
Upstate eastern	67,193	10	84
Upstate central	55,280	9	89
Upstate western	40,219	6	87
100,000-499,000 volumes			
NYC metropolitan	20,383	3	78
All upstate	15,809	3	67
500,000 volumes or more			
NYC metropolitan	37,523	6	34
All upstate[b]	–[b]	–[b]	–[b]
Academic libraries			
Less than 100,000 volumes			
NYC metropolitan	16,353	3	90
Upstate eastern	3,904	1	78
Upstate central	3,992	1	88
Upstate western	5,658	1	89
100,000-499,000 volumes			
NYC metropolitan	10,430	2	90
All upstate	20,807	3	88
500,000 volumes or more			
NYC metropolitan	3,672	1	82
All upstate	16,360	3	79
Other libraries			
Medical			
NYC metropolitan	35,539	6	87
All upstate	25,992	4	93
Other special			
NYC metropolitan	59,387	9	82
Upstate eastern	12,758	2	90
Upstate central	2,907	1	84
Upstate western	33,620	5	93
Total	643,568	101%[c]	83%

[a] Twelve-month estimates.

[b] No usable responses to surveys. See Appendix A.

[c] Does not total 100%, due to rounding error.

2

Table 2.4 presents some of these same data in still more detail, adding in size of library to type and region in the analysis of the sources of the total volume of interlibrary loan. In some instances, a more detailed regional breakdown has been used.

Again considering public libraries first, a significant relationship immediately becomes apparent. The larger the public library, the smaller the proportion of filled requests. Small public libraries have 86% of their requests filled, compared to 65% for medium-sized public libraries, and 34% for large public libraries. This relationship is not difficult to explain. Small public libraries utilize larger public libraries to fill their needs. But when the larger institutions need materials, they have fewer resources to turn to; when needs cannot be met within a large public library, chance of success through interlibrary loan is already narrowed.

Such findings do not apply to academic libraries. Small and medium size academic libraries have about the same proportion of requests filled (88% and 89%, respectively). Large academic libraries do have slightly fewer requests filled (85%). The probable explanation is that academic interlibrary loan requests are rarely for "general" materials, unlike most requests from public libraries. The special subject content of these items enables the use of union lists, special library collections, and the academic librarian's general knowledge of research materials and where they are held. These known differences between public and academic interlibrary loan practices are discussed further in the next section.

Different Resource Institutions

Where are ILL requests being sent? Table 2.5 presents data on the overall use of resources for requests initiated in New York State in 1968. The majority of requests (64%) was sent to local public library systems (but not sent on to NYSILL). Another 14% were processed by NYSILL, most of which came via local library systems. Academic institutions received about six percent of the requests (not counting requests referred by NYSILL); most of these went to colleges in New York State. Medical institutions dealt with seven percent of all requests. Business libraries and national libraries each handled two percent of the requests, and other resources were utilized six percent of the time.

As would be expected, there is a great deal of variation in use of different resources by various types of libraries. Table 2.6 shows that virtually all requests initiated in public libraries were sent to local systems (83%) or to NYSILL (17%). No other type of library utilizes local systems to this degree, and only academic libraries send a greater proportion of their items to NYSILL (26%). The major resources for the academic libraries, however, are the other academic libraries which received 31% of all academic requests. Two-thirds of academic library requests were sent to academic libraries in New York State.

Thirteen percent of the academic requests were sent to medical libraries, and another 17% were sent to local public library systems. National libraries and "other" resources received most of the remaining requests (7% and 6%, respectively). These contrasting patterns of use for academic and public libraries are consistent with both known characteristics of interlibrary cooperation and with the outcomes for filling mentioned above: the public libraries make up the bulk of the load, use other public resources. and experience relatively low success rates, while the academic libraries use research-oriented resources and obtain relatively high rates of success.

Medical libraries utilize the SUNY Biomedical Network (38%) of all requests) and other medical libraries (34%, including items sent to the National Library of Medicine) for the vast majority of their ILL

Table 2.5

RESOURCES USED BY ALL LIBRARIES IN NEW YORK STATE: 1968

Resource	Percent of All Requests Sent to This Resource
Local systems, but not sent on to NYSILL[a]	64%
NYSILL	14 [d]
Major colleges and universities[b]	3
SUNY Biomedical Network	3
Other medical libraries	4
National libraries[c]	2
Other New York State colleges and universities	3
Other non-New York State colleges and universities	1
Business libraries	2
Other resources	6 [e]
Total	102%[f]

a Includes the two regional ILL networks in upstate New York.

b SUNY, Columbia, NYU, Cornell, Harvard and Yale; each constituted less than 1% of the total.

c The Library of Congress, National Library of Medicine, and the National Agricultural Library.

d This percentage represents the 87,220 requests processed by NYSILL in 1968.

e Many other resources were named, but no one of them was mentioned by more than a few respondents.

f Does not total 100%, due to rounding error.

requests. Smaller proportions are sent to academic libraries (6%), all of which are in New York State, and "other" resources (17%).

Other special libraries send the greater proportion of their requests to local systems (37%), send another quarter of the load to "other" resources, and send smaller proportions to business libraries (15%) or academic libraries (14%, most of which are located in the state).

Table 2.6

RESOURCES USED BY SELECTED TYPES OF LIBRARIES IN NEW YORK STATE: 1968

Resource[a]	Percent Sent to This Resource by: Public Libraries	Academic Libraries	Medical Libraries	Other Special Libraries	All New York State
Local systems, but not sent on to NYSILL	83%	17%	6%	37%	64%
NYSILL	17	26	1	1	14
Major colleges and universities	0[b]	7	4	4	3
SUNY Biomedical Network	0	2	38	1	3
Other medical libraries	0[b]	11	28	2	4
National libraries	0[b]	7[c]	4[e]	5	2
Other New York State colleges and universities	0[b]	11	2	8	3
Other non-New York State colleges and universities	0[b]	4	0[b]	2	1
Business libraries	0[b]	0[b]	0	15	2
Other resources	0[b]	6	17	25	6
Total	100%	101%[d]	100%	100%	102%[d]

[a] See Table 2.5 for resource libraries in each category.

[b] The actual percentage in this category was somewhere between 0.1% to 0.4% and was rounded to 0%. In each case there were some requests, but never accounting for more than 0.4% of all requests.

[c] The Library of Congress receives the vast majority of requests.

[d] Does not total 100%, due to rounding error.

[e] The National Library of Medicine received the great majority of requests.

NYSILL AS A RESOURCE: A COMPARISON WITH OVERALL STATEWIDE VOLUME

As is evident from the preceding discussion, NYSILL is an important resource for public and academic libraries, and a relatively unimportant resource for medical and other special libraries. To probe the issue of use of NYSILL a little further, we may contrast its pattern of service with that of the state as a whole. Table 2.7 provides the needed data.

First examining the data for all types of libraries, the majority of all requests in New York State are made by downstate libraries (53%). However, in NYSILL this distribution is reversed: an even greater majority of its requests are from upstate libraries (64%).

Carrying the analysis further: public libraries contribute 74% of the NYSILL requests. This reflects the disproportionate use of NYSILL by public libraries, as was already known. When viewing these data by region, it becomes apparent that the upstate public libraries account for the extra use of NYSILL. Downstate public libraries initiate 33% of all interlibrary loan requests in New York, and 33% of the NYSILL volume, no more than would be expected as long as NYSILL reflected statewide patterns. Upstate libraries, on the whole, initiate fewer requests overall in New York than downstate libraries, yet account for a larger proportion of NYSILL's interlibrary loan activity. These data reflect the importance of NYSILL as a resource for public libraries in upstate New York.

The academic libraries' load in NYSILL is almost double (24% of the total) that volume which would be expected on the basis of academic libraries' share of total interlibrary loan in New York State (13%). Again, it is upstate libraries which account for the disproportionate usage. Downstate academic libraries make half as many requests of NYSILL as would be expected, but upstate academic libraries make three times as many requests of NYSILL than would be expected. Hence NYSILL is even more important a resource to upstate academic libraries than it is to upstate public libraries, and less important to downstate academic libraries than it is to downstate public libraries.

Of course disproportionately high usage of NYSILL by certain types of libraries in certain regions necessarily implies disproportionately low usage by other types and regions. Such is the case for medical and other special libraries, as was indicated earlier (Table 2.6). Table 2.7 adds to this knowledge by providing regional data. Although the percentages are small, the trends are evident, and are similar to the findings noted for public and academic libraries: upstate medical and other special libraries use NYSILL more often than downstate medical and other special libraries, even though the latter make more interlibrary loan requests overall than the former. Once again, NYSILL is found to be more important to upstate than to downstate libraries.

Table 2.7

SOURCES OF NYSILL REQUESTS AND
SOURCES OF ALL REQUESTS IN NEW YORK STATE

Type and Region	Proportion of All Requests in New York State	Proportion of All NYSILL Requests
All libraries in New York		
Upstate	47%	64%
Downstate	53	36
Total	100%	100%
Public libraries		
Upstate	28%	41%
Downstate	33	33
Total	61%	74%
Academic libraries		
Upstate	8%	22%
Downstate	5	2
Total	13%	24%
Other libraries		
Medical		
Upstate	4%	1%
Downstate	6	0 *
Total	10%	1%
Other special		
Upstate	8%	1%
Downstate	9	1
Total	17%	2%

*Rounded to 0% from 0.1%.

SUMMARY

The data reported above are only estimates, and cannot be regarded as conclusive without further refinement of the methods used to obtain these figures. As a working benchmark on which to base comparisons, however, the survey has provided much useful information.

We have seen that in 1968 almost two-thirds of a million requests were initiated in New York State, of which 83% were filled. There were one-third more requests initiated in 1968 than in 1966 (the result of a steady increase over this three-year period), and percentage of requests filled remained virtually unchanged from year to year.

Public libraries made more than three-fifths of all requests. Of all interlibrary loan requests in New York State, the majority were initiated by libraries in downstate areas. This holds true for all types of libraries except academic, where upstate sources initiated more. Finally, when considering size of public and academic libraries, it was found that the following holds true: for public libraries, the larger the library, the smaller the proportion of filled requests; for academic libraries, library size makes no special difference in the rate of success in using interlibrary loan. Probably interactions between these regional and size effects exist; further study is needed to determine if the upstate-downstate differences are really a function of library size, or vice versa.[1]

The great majority of all interlibrary loan requests in New York State are going to local systems or NYSILL; again, to a great degree this is due to the fact that public libraries initiate 61% of all interlibrary loan requests. Usage varied by type of library: public libraries used local systems and NYSILL; academic libraries used other academic libraries, NYSILL, local systems, and medical libraries; medical libraries used other medical libraries; other special libraries used local systems, "other" resources, business libraries, and academic libraries.

NYSILL deals with 14% of all interlibrary loan requests initiated in New York State. Almost three-quarters of all NYSILL requests are from public libraries, and the remainder almost entirely comprise requests from academic libraries. Even though the majority of interlibrary loan requests in New York State are initiated by downstate libraries, almost two-thirds of all NYSILL requests come from upstate libraries.

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[1] The additional study was made for NYSILL requests only in Chapter VI.

Chapter III

THE CHARACTER OF INTERLIBRARY LOAN REQUESTS IN NEW YORK

Numbers alone cannot convey the wide variety of information needs served by interlibrary loan in New York State. The actual materials requested and supplied range from fairly common books or magazines on subjects of general interest to the public at large, to very rare or highly specialized research journals or monographs. Inspecting the actual requests is one way to obtain a feeling for this diversity. For this study, requests have been sampled both from the state-funded systems and from the survey of all interlibrary loans in New York, to make up lists of typical items requested by different kinds of libraries or sent to different kinds of resources. Our commentary on these lists can be fairly brief, for on the whole these data speak for themselves.

REQUESTS OF BORROWING LIBRARIES

In order to ascertain the character of borrowing patterns of New York libraries, librarians were asked to keep a detailed record of their ILL requests for the week beginning November 17, 1968 and to record every fifth request they instituted (see Questionnaire Part IV: 4). These requests were sorted by type of requesting library and by requests directed to the State Library and/or NYSILL and to non-NYSILL resources. Sample requests were then randomly chosen for evaluation and inclusion in the exhibits for this chapter.

Public Library Requests

Almost all public libraries in New York are members of regional public library systems, which serve to coordinate local interlibrary lending and borrowing, often supplementing collections of member libraries with backup materials held by the system headquarters. The requests listed in Exhibit 3.1 typify the kinds of items sent to these local systems from public libraries.

Small public libraries largely request current materials of a general nature, which are easily filled by these local systems. The requests from small downstate libraries include more older and sophisticated materials than do the requests from small upstate libraries; this is consistent with findings elsewhere in this report about the differing patterns of use for public libraries in different geographic areas of the State. Small public libraries did not list any requests directed to non-NYSILL libraries. Medium and large public libraries, however, sent

Exhibit 3.1

PUBLIC LIBRARY INTERLIBRARY LOANS REQUESTED FROM LIBRARY SYSTEMS

Request	Status as of 12/16/68	Request	Status as of 12/16/68
UPSTATE SMALL PUBLIC LIBRARIES		*DOWNSTATE SMALL PUBLIC LIBRARIES*	
Aikawa, Takaaki The Mind of Japan Judson, 1967	filled	Adams, Richard Community in the Andes: Problems Univ. Wash., 1959	filled
Holt, John How Children Learn Putnam, 1967	filled	Blanchard Make the Most of Your Retirement	filled
Haywood, C. Penny and Peter H B & W, 1946	filled	Collins, James Highway Collision Analysis Thomas, 1967	filled
Meyer, F. Marc Chagall	filled	Frommer, A. Europe on $5.00 a Day ABC, 1967	filled
Narin, Jan The American Landscape Random, 1965	pending	Fuller, John Interrupted Journey Deal, 1966	filled
Patten, John The Light Horse Breeds Barney	not filled	Hopkins, V. Dred Scott Case Russell, 1951	filled
Pearson, Drew Case Against Congress	reserved	Lowrie, W. Art in the Early Church Harper	filled
Plimpton, George Bogey Man Harper Row, 1968	filled	Machal, Jan Slavic Mythology Cooper, 1964	filled
Wylie, Philip Innocent Ambassador Rhinehart, 1957	filled	Nicolson, Harold Diplomacy Oxford, 1903	not available in time for deadline
Zimmer, Allen F. The Strategy of Successful Retail Salesmanship McGraw-Hill, 1966	filled		

(continued)

Exhibit 3.1
(continued)

Request	Status as of 12/16/68
DOWNSTATE SMALL PUBLIC LIBRARIES (continued)	
Tewkesbury, D.G. Founding of American Colleges and Universities Before the Civil War Shoe String, 1932	filled
Thompson, A.C. and E.F. De Roche "Sex Education, Parent Involvement in Decision Making" Phi Delta Kappan, Vol. 49, No. 1-3, May 1968	filled
Xenophon Anabasis Jesuit Educ. Assoc., 3rd Ed., 1961	filled
MEDIUM-SIZED PUBLIC LIBRARIES: UPSTATE AND DOWNSTATE	
DuBois, W.E.B. Color and Democracy Harcourt, 1945	filled
Engel, Pauline Executive Secretary's Handbook Prentice Hall, 1965	filled
Hoppock, R. Job Satisfaction Harper, 1935	filled
MEDIUM-SIZED PUBLIC LIBRARIES: UPSTATE AND DOWNSTATE (continued)	
Hurst, C.C. Experiments in Genetics Cambridge A. Press, 1925	filled
Metropolitan Museum of Art Introduction to 20th Century Design Met. Mus. of Art, 1959	filled
Wright, Nathalia Melville's Use of the Bible Duke U. Pr., 1949	filled
LARGE PUBLIC LIBRARIES: UPSTATE AND DOWNSTATE	
Powell, E.E. Spinoza on Religion	filled
Oppenheim, A. Questionnaire Design and Attitude Measurement Basic, 1966	filled
Whitney, Phyllis Quicksilver Pool Academic Pr., 1957	filled

Exhibit 3.2

NON-NYSILL INTERLIBRARY LOAN REQUESTS FROM NEW YORK PUBLIC LIBRARIES

Region Originated From	Request	Source Requested From	Date of Request	Status as of 12/16/68
	MEDIUM-SIZED PUBLIC LIBRARIES			
N.Y. Metro	Hillel, David D'Beth. Travels of Rabbi David D'Beth Hillel. Madras, 1832.	Yale	11/18	12/6
N.Y. Metro	Kamke, E. Theory of Sets. Dover, 1950.	Iona Sarah Lawrence	11/20 11/20	WNS 11/25
Upstate Eastern	Spence, Lewis. Atlantis in America. Brentano's, 1925.	Russell Sage NYSL SUNY RPI	? ? ? ?	NIL NIL NIL NIL
N.Y. Metro	Spalding, T.A. Elizabethan Demonology. London, 1880.	Boston PL	11/18	Pending
	LARGE PUBLIC LIBRARIES			
N.Y. Metro	Mozart, J. Original Composition for Piano Duet. Int. Music Co., 1943.	NYPL Brooklyn PL	12/5 11/19	Not Filled Not Filled
N.Y. Metro	Schnitzer, K. Electrogardographic Techniques. Grune, 1960.	Brooklyn PL NYPL	11/19 12/5	Not Filled Not Filled

a number of requests to such resources, mainly to college libraries in their immediate areas. Samples of these are given in Exhibit 3.2. The two items requested from out-of-state libraries--Yale University and the Boston Public Library--are both 19th century publications and were undoubtedly verified in bibliographies or union catalogs. The four unfilled items (Kamke, Spence, Mozart and Saitzer) could probably have been filled had they been directed to NYSILL.

Academic Library Requests

The requests originating from academic libraries cover a wide range of subjects and are of a higher level than those from public libraries. Exhibit 3.3 is a sampling of academic requests directed to the State Library and NYSILL. Even though these randomly selected requests cover a wide range of subject matter, ask for materials published many years ago as well as more recent works, and include foreign language materials, all were filled through NYSILL.

The academic requests directed to non-NYSILL sources (Exhibit 3.4) also include a variety of subjects, cover an even wider range of publication years (1743-1963), include more foreign language materials, and in general are of a higher level than those requested of NYSILL. These requests are directed to a variety of sources throughout the country and the world. The smaller academic libraries seem to restrict themselves to their own geographic areas, medium-sized libraries go farther afield and the large libraries request materials even from the Soviet Union.

The rate of fill in this sample indicates that these requests are carefully verified for bibliographic accuracy and checked for holding information. The other significant fact is that most requests were filled in one or two weeks. A percentage of these requests could undoubtedly have been filled through NYSILL (e.g., Levy, *Paintings of D. H. Lawrence*; *New Times*; Meade, *Economic and Social Structure of Mauritius*), but would probably have consumed more time in processing.

In interviews and in the survey, the reliance by academic librarians on standard ALA interlibrary borrowing practices was frequently stressed. Most academic librarians verify all requests and request materials from the most likely sources, often returning again and again to libraries that have given prompt service in the past. Except for the resources of large academic libraries in New York and The New York Public Library, many academic librarians may be unfamiliar with the collections of the State Library and the other NYSILL referral libraries, which would help explain these patterns of use.

Medical Library Requests

Medical libraries have access to several interlibrary loan networks as well as other sources, and generally rely heavily on these. Exhibit 3.5 clearly shows this pattern. Since the needs of medical libraries

Exhibit 3.3

INTERLIBRARY LOAN REQUESTS TO NYSILL AND THE NEW YORK STATE LIBRARY FROM ACADEMIC LIBRARIES

Request	Status as of 12/16/68
SMALL ACADEMIC LIBRARIES	
Brown, Joe D. The Hippies 1967	filled
Perry, Henry Tom Eyck Comic Spirit in Restoration Drama Russell, 1925	filled
Wager, Willis "Freshly Love in Chaucer's Troilus" Modern Lang. Rev., 1/'39, Vol. 34	filled
MEDIUM-SIZED ACADEMIC LIBRARIES	
Barclay, Thomas Liberal Republican Movement Missouri State Hist. Society, 1926	filled
Byrd, R. "Portrait of Leadership in a New Nation" Queen's Quarterly, Vol. 69, 1963	filled
Neeper, G. Evolution of Living Organisms Melbourne U.P., 1962	filled
MEDIUM-SIZED ACADEMIC LIBRARIES (continued)	
Suchman, J.R. "Inquiry" Instructor, N. 1965, N. 1966	filled
Terman, H.I. "Pathology of Schools" New England Mag., V. 41	filled
LARGE ACADEMIC LIBRARIES	
Baldwin "Social Position of the Mentally Retarded Child" Exceptional Children, V. 25, 1958	filled
"On the Origin - Sailendres (Indonesia)" Greater India Society, Journal, 1934	filled
Svoboda i Vera Russkii Viestnik, V. 230, 1894	filled

Exhibit 3.4

NON-NYSILL INTERLIBRARY LOAN REQUESTS FROM NEW YORK ACADEMIC LIBRARIES

Region Originated From	Request	Source Requested From	Date of Request	Status as of 12/16/68
	SMALL ACADEMIC LIBRARIES			
N.Y. Metro	Ball, Francis. History of the County Dublin. Dublin, 1902.	U of Kansas	11/18	Pending
?	Greenberg, Dolores. Sir John MacDonald: Letter Books 10-28A. Canada, 1855-91.	Archives of Canada	11/21	12/3
Upstate Western	Moore, H.L. "Elasticity of Demand and Flexibility of Prices." Journal of the Americal Association, March 18, 1922.	Rochester PL	11/20	12/2
Upstate Central	Lapin. "Which Way UNESCO." New Times, 1961 (Moscow).	Harvard	11/21	12/2
Upstate Central	Levy, M. Paintings of D.H. Lawrence. Viking, 1964.	Syracuse U	11/19	11/19
	MEDIUM-SIZED ACADEMIC LIBRARIES			
Upstate Western	Ashworth, H. A Tour in the U.S., Cuba and Canada. A.W. Bennett, 1861.	U of Kentucky	11/22	12/6
N.Y. Metro	Bois, Robert F. La Viaye Didon ou la Didon Chaste. T. Quinet, 1743.	U of Chicago	11/18	12/4

(continued)

Exhibit 3.4
(continued)

Region Originated From	Request	Source Requested From	Date of Request	Status as of 12/16/68
	MEDIUM-SIZED ACADEMIC LIBRARIES (continued)			
N.Y. Metro	Comte, G. La Cote d'Ivoire. Europe, France, Outre-Mer #407, 1963.	Howard U U of Pittsburgh	11/20 12/16	Not Owned Pending
Upstate Eastern	Francillon, R.F. "Left-Handed Elsa." Blackwoods Mag., Vol. 119, 1876.	Union	11/21	11/25
Upstate Eastern	Guleri, L. Commentationes Mech. Ad. Theoriam, Ser. II, V. 13.	LC	11/18	Not Filled
N.Y. Metro	Meade, J.E. Economic and Social Structure of Mauritius. London, Metheun, 1961.	Brit Info Svc	11/20	11/25
N.Y. Metro	Phifer, L.R. "Seasonal Distrib...." Oceanography, V. 1.	Marine Bio Lab	11/19	11/25
Upstate Central	Singleton, D. Goebbels' Experiment. Yale, 1943.	Hamilton	11/21	11/22
Upstate Central	Wahlback, K. Sveriges Sak Ar Var. Prisma, 1966.	Northwestern U	11/17	11/26
	LARGE ACADEMIC LIBRARIES			
Upstate Western	Amaral, Amadeu. O Dialeto Caipira. O Livro (Sao Paulo), 1920.	U of Illinois	11/21	12/5

(continued)

Exhibit 3.4
(continued)

Region Originated From	Request	Source Requested From	Date of Request	Status as of 12/16/68
	LARGE ACADEMIC LIBRARIES (continued)			
N.Y. Metro	Kinosohvili, R.S. "Raschet Prochnosti Shatunov Aviatsionny Dvigatele." Moscow, Tsentraliny' Institut Aviatsionnogo Motorstroennia, Trudy, #6, 1945.	Lenin Lib Moscow, USSR	11/19	Pending
N.Y. Metro	Sallustius, Crispus. Histoire de la Republique Romaine...3v. 1777.	Northwestern U	11/22	12/4

Exhibit 3.5

INTERLIBRARY LOAN REQUESTS FROM NEW YORK MEDICAL LIBRARIES

Region Originated From	Request	Source Requested From	Date of Request	Status as of 12/16/68
?	Abramson, H.A. "Utilization of the Cronus Complex..." Revista Argentina de Alergia, V. 2, 1955.	NLM John Crerar	11/18 11/26	Not Filled 12/9
?	Crowen, W.B. "Dispersion of Airborne Bacteria..." Contamination Control, V. 6, 1967.	Ga Inst Tech	11/19	12/3
Upstate	Gahlen. "Pathergy Microb. Eczema." Z. Haut. Geschl. Krankh., V. 41, 1966.	NLM MRL Brooklyn	11/18 11/22	Not Filled 12/2
Downstate	Gardner, F. "Experimentell unter Suchungen uberden 2 Usammenbang." Ophthalmologica, V. 130.	Columbia U	11/19	11/27
Downstate	Harris, D. "Discoloration of Teeth Due to Tetracyclines." Chronicle, Omaha District Dental Soc., V. 30, 1967.	Temple U Dental Pharm Lab	11/19	12/2
Upstate	Hartland, John. Medical and Dental Hypnosis and Its Clinical Applications. William & Wilkins, 1966.	SUNY-Biomed NYSILL	11/20 12/2	NIL Pending
?	Hartocollis, P. "Syndrome of Minimal Brain Dysfunction." Bull. Menninger Clinic, V. 32, Mar. 68.	SUNY-Buffalo	11/18	11/25
Downstate	Hsia, D.Y. "Diagnosis of Carriers of Disease." Ann. N.Y. Acad. Sci., V. 134, 1966.	MRL Brooklyn	11/17	11/21

(continued)

Exhibit 3.5
(continued)

Region Originated From	Request	Source Requested From	Date of Request	Status as of 12/16/68
Upstate	Nevill, Ann. Effects of Human Exposure to Ionizing Radiation. Atomic Energy Comm., 1967.	Knolls Atomic Power Lab	11/19	11/21
Downstate	Thompson, T.C. "Astragalectomy & the treatment of calcaneoualgus." J. of Bone & Joint Surgery, V. 121: 3, July, 1939.	NYU	11/20	11/20
Downstate	"Treatment of Alcoholism." Postgraduate Med., V. 40, Oct. 1, 1966.	NYSL	11/17	11/29
Upstate	Ursprung, H. Results and Problems in Cell Differentiation. V. 1, Springer - Verlag, 1968.	Upstate MLC	11/20	Pending
?	Zarem, H. "Induced Resolution of Cavernous Hemangiomas." Plastic Reconstructive Surg., V. 39, 1967.	NYSILL	11/18	Not Filled
Downstate	Zweifach, B.W. Inflammatory. 1965.	NYAM	11/23	12/2

Exhibit 3.6

INTERLIBRARY LOAN REQUESTS FROM NEW YORK SPECIAL LIBRARIES

Region Originated From	Request	Source Requested From	Date of Request	Status as of 12/16/68
?	Brandt, S. David et Al. "Legal Problems Created by the Formation and Operation of Investment Clauses." Univ. of Pa. Law Rev., V. 106, 1957-6.	Appellate Div Law Lib Rochester	11/15	11/18
Up. West.	Baraner. Experimental Mechanics. V. 8, 1968.	RRRLC	11/19	12/2
N.Y. Met.	Himmelherer. Negerkunst. 1935.	Amer Museum of Nat Hist	11/26	11/26
N.Y. Met.	Horak. "Industrie Chim. Belg." Chimie et Civilization, V. 32, 1967.	Chemist Club	11/17	NIL - Not Available
N.Y. Met.	Industrial Management Review. Spring, 1967.	Dun & Bradstrt	11/22	11/22
Upstate Western	Ivnitskii, V.A. "Approach to Statistical Evaluation of System Reliability." Engineering Cybernetics, #4, 1967.	WNYLRC	11/21	12/5
N.Y. Met.	Jensen, Vernon. Hiring of Dock Workers.	NYS Dept of Labor Lib	11/21	12/9
N.Y. Met.	Kuh, Richard H. Foolish Figleaves. MacMillan, 1967.	Columbia	11/20	11/21
Upstate Eastern	Mangone & Hall. "Properties of Type HK Cast Alloys." Alloy Casting Bull., 17, Oct. 1961.	Linda Hall Lib	11/22	12/13

(continued)

Exhibit 3.6
(continued)

Region Originated From	Request	Source Requested From	Date of Request	Status as of 12/16/68
Upstate Eastern	Marshall Space Flight Center. Instrument Unit Applications for Saturn I Workshop. Marshl. Spc. Flght. Cntr. Repts., III, 6-602-91, July 31, 1968.	Marshall SFC	11/20	Pending
N.Y. Metro	Mead, M. "My First Job." Ladies' Home J., 4/57.	NLS	11/21	11/21
Up. East.	Paleologue. "The Dreyfus Case." Criterion, 1957.	NYSL	11/30	11/30
Up. West.	Several references in: Rubber Age, V. 10, 1968.	ESL	11/19	12/5
Upstate Eastern	Smith, Peter. Chemistry of Open-Chain Nitrogen Compounds. Benjamin, 1965.	NYSL	11/20	11/22
N.Y. Metro	Spink, L.K. Principles & Practices of Flow Meter Eng. Foxboro Corp., 1958.	Mobil Oil	11/18	11/19
Up. Cent.	Stevenson. Elements of Power System Analysis.	NYSILL	11/22	12/2
Upstate Central	Talukdar, P.B. "Studies on Dithio-Carbamates: P.IV." J. of Ind. Ch. Soc., V. 45, 1968.	Inst for Sci Info	11/18	11/21
Up. East.	Walz, K. The Problems of Spring Matls. Wire.	NYSILL	11/20	12/11
N.Y. Metro	White, J. Railroad Opns. Simmons Boardman, 1946.	Simmons Boardmn	11/19	11/19
Upstate Western	Whitlock, Edit. "Experimental Designs in Industry." Technique & Apparatus, Wiley, 1958.	RPL	11/19	11/20
Upstate Western	Woods, K.B. Highway Engineering Handbook. McGraw, 1960.	NYSILL	11/20	Pending

are particularly specialized, their reliance on other medical sources is understandable. NYSILL's contribution to medical borrowing, in addition to the State Library's own medical collection, is the provision of the New York Academy of Medicine as a subject referral center; the other subject and area referral centers also fill non-medical materials that medical libraries require from time to time. NYSILL medical service has been relatively good except for time delays, and the data in Exhibit 3.5 raises the question of why medical libraries do not use NYSILL more extensively for the material which was requested from out-of-state resources. The provision of "urgent" service should have met many of the speed drawbacks of NYSILL, but it was so seldom used that no conclusions can yet be drawn (See Chapter IV).

Contamination Control and the Atomic Energy Commission publication could possibly have been filled through NYSILL. One of the more impressive insights into medical borrowing provided by these citations is the generally high rate of fill and the relatively short time lapse in filling. This again indicates that citations are carefully verified.

Special Library Requests

Special libraries also make heavy use of non-NYSILL sources to fill their needs. Special librarians usually know the best sources for materials in their subject fields, and tend to borrow from sources that will give the best and fastest service.

Exhibit 3.6 is a sampling of requests made by special libraries. It was expected that special libraries would tend to use sources, usually other special libraries, in their immediate area. These citations, as well as statistics gathered from the questionnaire, bear this out. Special librarians must provide quick service to their patrons, and the use of sources in close physical proximity insures quick service and a high rate of fill, as evidenced by the data.

REQUESTS IN NYSILL

Only eleven percent of all libraries using interlibrary loan in the state had not heard of NYSILL by November, 1968. Of these, most were special libraries, small public libraries, law libraries or medical libraries.[1] Geographic distribution did not seem to make any difference in knowledge of state-supported resources. The remaining 89 percent of interlibrary borrowers or lenders were aware of NYSILL, although not all of them made use of the service. A closer inspection of the requests which were submitted will serve to clarify the character both of the materials supplied and that of materials which the system was unable to fill. The requests listed in the exhibits in this section were randomly chosen from actual requests submitted to NYSILL. Citations have been corrected wherever possible.

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[1] From a question on the survey of libraries. See Appendix A.

Requests at the State Library

All requests (except for university "directs") which enter the NYSILL network are first searched at the State Library, which serves as the referral agency and the primary resource. Exhibit 3.7[2] is a sample of the kind of materials that the State Library was able to fill from its collections of over 4 million volumes. These requests represent a wide spectrum of subjects; it is evident that the State Library's holdings are particularly strong in education, medicine, science, literature, history, and periodicals. The Library also was able to fill some foreign language requests and generally seems to be strongest in more recent publications.

Exhibit 3.8 is a listing of requests which the State Library could not fill from its collections. Many of these are older or foreign language materials, and the State Library was particularly weak in the fields of art and religion. Overall, however, it is evident from these two exhibits that the State Library is well qualified to act as the first source for NYSILL requests.

Requests at NYSILL Referral Libraries

The referral libraries filled 18% of all NYSILL requests (See Table 4.5) often going beyond the boundaries of the subject responsibilities outlined in the NYSILL Manual in an effort to give good service. Exhibit 3.9 is a sampling of the requests filled by the referral libraries. The requests filled by area referral centers are naturally of a lower level than those filled by subject centers, but it is interesting to note that several older items or requests for specialized materials were filled by area centers, such as Drake's Old Landmarks; Annual Review of Microbiology; Channing's Early Recollections of Newport.

The requests filled by subject referral centers are of a higher level, although some general requests, such as Heilmann's Principles and Practices in Teaching Reading, were referred to subject centers. A careful inspection of these requests shows that many subject libraries filled requests outside their official subject responsibilities. This is only reasonable, of course, for those requests routed on the basis of holdings information rather than subject. It is obvious that the referral centers are generally being well used; the level and difficulty of requests is appropriate.

The NYSILL referral libraries were unable to fill 43% of the requests which they received. Exhibit 3.10 shows a sampling of these requests. It is difficult to explain why these requests could not be filled by NYSILL, since none of them represent obvious special problems (such as subject, level, age, or bibliographic difficulties). One can only assume that a portion of these unfilled requests represent a reasonable average for unfilled items in any system or library, and that the remaining portion could have been filled had they been referred on to other NYSILL libraries. Possibly a more detailed study and analysis of these unfilled items would uncover common characteristics of these requests. Such information would be a useful planning tool in guiding collection development and the search for new referral centers.

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[2] The remaining exhibits are appended at the end of this chapter.

SUMMARY

The exhibits presented here clearly show that interlibrary loan, whether directed to NYSILL or to other resources, is a source of much genuine research and reference material for citizens of New York. Indeed, for the student or scholar isolated from the major research collections housed in a few urban centers, interlibrary loan may be the only means for acquiring needed references and access to research literature. The materials provided by NYSILL contribute substantially to the overall interlibrary loan services provided for citizens of the state, and include a large portion of those loans at the very highest levels. This should not be taken to mean that more general requests also filled by NYSILL are somehow of minor importance; they are not. The State Library has had a wise and long-standing policy of treating all patrons equally. Who is to say that a general work supplied to a high school student is less useful to that patron, in an absolute sense, than a fairly high-level article supplied to a scholar working on a dissertation? Nevertheless, NYSILL is primarily a reference and research service, and the data reviewed here show that these are the major uses made of it.

Exhibit 3.7

INTERLIBRARY LOAN REQUESTS FILLED BY THE NEW YORK STATE LIBRARY

Filled Request

Nakasava, R.
"Der Einfluss der Chronishen Nicotinvergiftung"
1933, Japanese Jnl. of Medical Sciences, Transactions, Sect. 4, Pharmac.

Browne, D.
"Congenital Deformities of the Mouth"
1934, Practitioner, Vol. 658

Rudwick, E. M.
"Negro Police in the South"
1960, Jnl. of Crim. Law, Criminology and Police Science, Vol. 51, Jul.

Collins, W. E. W.
"Schoolboy in Fiction"
1906, Bookman, London, Vol. 29, March, pp. 235-240 plus

Kaplan, M. M.
"The Lab in Diagnosis and Prevention of Rabies"
1966, Monograph Serv., Vol. 23, pp. 11-16

Bergson, Helen
The World of Dreams
1958, Philosophical Lib.

Shera, Jesse & Egan, M., Eds.
Bibliographic Organization
1951, Chicago Univ. Grad. Library School, Library Institute, Chicago

Filled Request

Helmericks, Constance
Our Summer with the Eskimos
1948, Little

Ashbrook, F. G.
How To Raise Rabbits for Food and Fur
1943

Gardner, E. G.
Dante
1900, J. M. Dent & Co.

Bernstein, Abraham
Teaching English in High School
1961, Random

Fyfe, T. A.
Charles Dickens
1910, Chapman & Hall, London

Grow, L. D.
Student Teacher in Elementary School
1965, McKay

Byrne, M. St. Clare
Elizabethian Life in Town and Country
1961, Barnes & Noble

Agarevala, P. N.
"Die Indischen Kommunisten und die Wahlen in Kerala"
1965, Osteuropa, July-Aug., pp. 505-508

Lott, Albert & Bernice E.
Negro and White Youth
1963, Holt Rinehart

(continued)

Exhibit 3.7
(continued)

Filled Request

Morris, J. L.
Welding Processes and Procedures
1954, Prentice Hall

Kapeles, Gustav
Jews and Judaism in 19th Century
1905, Jewish Pub.

Forest Preserves and Game Laws
1908, Governor Charles E. Hughes
Public Papers, pp. 31-33, Albany

Anderson, A. V.
Chemical Calculations
1955, McGraw

Salmon, L. M.
The Newspaper and the Historian
1923, Oxford

Wymore, A. W.
Mathematical Theory of Systems Engineering
1967, Wiley

Stephenson, Carl
Mediaeval Feudalism
1942, Cornell Univ. Press

Cole, V. G.
Diseases of Cattle
Tri-Ocean

Riessman, F.
"The Overlooked Positives of Dis-Advantaged Groups"
1965, Jnl. of Negro Education,
Vol. 34, pp. 160-166

Grigson, Geoffrey
Englishman's Flora
1955, Macmillan

Filled Request

Bedford, B. D.
Principle of Inverter Circuits
1964, Wiley

Perkins, J. B.
Richelieu and the Growth of the French Power
1900, Putnam

Troward, Thomas
Edinburgh Lectures on Mental Science
1927, Dodd

Torrey, Norman
Voltaire and the English Deists
1930, Archon

Roscoe, Theodore
U.S. Submarine Operations in World War II
1949, U.S. Naval Inst.

Perelman, Sidney
One Touch of Venus: A Play
1944, Little

Peters, S. A.
General History of Connecticut
1877

Litchfield, Frederick
Illustrated History of Furniture
1907, London, Truslove & Hanson, Ltd.

Adams, R. M.
Rude Rural Rhymes
1925, Macmillan

Carroll, W. E. & Krider, J. L.
Swine Production
1962, McGraw

(continued)

Exhibit 3.7

(continued)

Filled Request	Filled Request
Finch, Elfreda Flowers and Furniture in America's Historic Homes 1967, Hearthside Press	Farber, D. C. From Option to Opening Guide for the Off-Broadway Producer 1968, Drama Book Shop
Hackensmith, C. W. History of Physical Education 1966, Harper	Shulmann, Julius Photographing Architecture and Interiors 1962, Whitney Lib. of Design
Richardson, Samuel History of Sir Charles Grandison 1783, Harrison & Co., London	Fisher, R. A. Contributions to Mathematical Statistics 1950, Wiley
Marti, Jose Obras Completas 1964, Impr. Delta	Brown, T. A. History of the American Stage 1870, Dick & Fitzgerald
	Cumont, Franz Valery Marie, Ed. Textes et Monuments Figures Relatifs aux Mysteres de Mithra 1868

Exhibit 3.8

INTERLIBRARY LOAN REQUESTS NOT FILLED BY THE NEW YORK STATE LIBRARY

Request
Reinhard, Marcel Henri IV Ou la France Sauvee 1943, Hachette, Paris
Mounier, Emanuel Personalist Manifesto 1938, Longmans Greens
Pyatakov, M. L. "On the Seasonal Fecundity Changes in Cladocera" 1956, Zoologicheskii Zhurnal, Vol. 35, pp. 1814-1819
Fabri, Ralph Complete Guide to Flower Painting Watson Guptill
Hanson, H. J., Ed. Art and the Seafarer 1968, Viking
Hogarth, Paul Creative Ink Drawing 1968, Watson Guptill, N. Y.
Sewell, George Making and Showing Your Own Films 1955, Pitman
Robbins, Harold Where Has Love Gone 1962, Trident
Archibald, Joe Hard Nosed Halfback 1963, McCrae Smith
Coulson, John Saints: A Concise Biographical Dictionary 1958, Hawthorn
Calatchi, Robert D. Oriental Carpets 1967, Tuttle
Ford, E. H. History of Journalism in the U.S. 1939, Burgess
Halifax, Charles Lord Halifax Ghost Book 1955, Didier
Aldecoa, Ignacio Gran Sol Novela 1957, Noguer, Barcelona
Bailey, S. L. Historical Sketches of Andover 1880, Houghton, Boston
Lipman, Jean American Folk Painting 1966, Potter
Meine, F. J. Tall Tales of the Southwest 1930, A. A. Knopf, N. Y.
Gillies, J. A. Textbook of Aviation Physiology 1965, Pergamon

(continued)

Exhibit 3.8
(continued)

Request	Request
Deropp, R. S. Drugs and the Mind 1957, St. Martins Press	Kazem, Z. H. Die Macht und die Heilkraft des Wahren Betens 1948, Amadeo Verlag
Gullace, Giovanni "Sartre et Descartes Le Probleme de la Liberte" 1966, Revue de L'Universite Laval, Vol. 21, pp. 107-125	Berenger, Calvet "Calorimetry by Compensation" 1927, Journal de Chemie Physique, Vol. 27, pp. 325-345
Dallas, P. S. "Bemerkungen ueber die Bandwurmer in Menschen und Thieren" 1781, Neue Nord Beytrage zur Phys. und Geog. Erd und Volkerb Natoerv.	Goodall, Norman The Ecumenical Movement 1961, London, Oxford
	Mundell, R. A. Man and Economics 1968, McGraw, N. Y.

Exhibit 3.9

NYSILL REQUESTS FILLED BY REFERRAL LIBRARIES

Filled Request

Area Referral Centers

Brooklyn Public Library:

Croft, C. R.
The Gardens of Camelot
1958, Putnam, London

Kaufmann, Yehezekel
Religion of Israel, ed. & trans. by M. Greenberg
1960, Univ. of Chicago Press

Meine, F. J.
Tall Tales of the Southwest
1930, A.A. Knopf, N. Y.

Fordham, E. W.
Notable Cross Examinations
1952, Macmillan

Rattenbury, J. E.
Wesley's Legacy to the World
1928, Cokesbury Press

Drake, S. A.
Old Landmarks and Historic Personages of Boston
1900, Boston

Stearn, Jess
The Fifth Man
1965, Doubleday

Rochester Public Library:

Lwoff, A.
"The Classification of Viruses"
1966, Ann. Rev. of Microbiology, Stanford, Vol. 20, pp. 45-74

Filled Request

Rochester Public Library (cont.):

Wiener, Norbert
Ex-Prodigy: My Childhood and Youth
Boston, M.I.T.

Mennonites and Their Heritage: A Handbook of Mennonite History and Belief
1964, Scottdale, Pa.

Borrowman, M. L.
Teacher Education in America
1965, Teachers College

Best, J. G., ed.
Benjamin Franklin on Education
1962, Teachers College

Lawes, L. E.
20,000 Years in Sing Sing
1932, R. Long & R.R. Smith, Inc.

Ruskin, John
Elements of Drawing
1902, Reprint Hse Intl.

White, R. W.
The Study of Lives: Essay on Personality in Honor of Henry A. Murra
1963, N.Y., Atherton

Buffalo and Erie County Library:

Thayer, H. R.
Earthwork and Retaining Walls
1928, International Correspondence Schools, Scranton, Pa.

(continued)

Exhibit 3.9
(continued)

Filled Request

Buffalo and Erie County Library (cont.):

Sanders, A. A. H.
"A History of the Percheron Horse"
1917, Breeders Gazette, Chicago

Trilling, Lionel
The Experience of Literature
1967, Holt

Sewell, George
Making and Showing Your Own Films
1955, Putnam

Beloff, Mac
Public Order and Popular Disturbances 1660-1774
1963, Barnes & Noble

Turner, L. P.
"Negro Spirituals in the Making"
1931, Musician, Vol. 17, Oct., pp. 480-485

Channing, G. G.
Early Recollections of Newport
1868, Newport

Collins, R. O.
Egypt and the Sudan
1967, Prentice Hall, N.J.

Subject Referral Centers

American Museum of Natural History Library:

Pan African Congress on Prehistory, 4th, Leopoldville, 1959

Filled Request

American Museum of Natural History Library (cont.):

Acts de 4th Congres Panafrican du Prehistoire et de l'Etude du Quatervuren Belgique Musee Royal de l'Afrique Centrale

Wright, K. L.
"Differential Range Use by Mouse Deer in the Spruce Fir Zone"
1960, Northwest Science, Vol. 34, No. 4, pp. 118-126

Columbia University Library:

Kracauer, Siegfried
Die Angestellten auf dem Neusten Deutschland
1930, Frankfort-am-Main

Heilman, A. W.
Principles and Practices in Teaching Reading, 2nd ed.
1967, Merrill, Chicago

Kerensky, Alexander & Bulyhgin, Paul
Murder of the Romanoffs
1935, London, Hutchinson

Gaulle, Charles de
De Gaulle Parle des Institutions de l'Algerie . . .
1962, Paris, Plon

Kirchner, N. I.
"Don Quixote de la Mancha: A Study in Classical Paranoia"
1967, Instituto Orientale Annali Sezione Romanza, Vol. 9, pp. 275-282

(continued)

Exhibit 3.9
(continued)

Filled Request

Columbia University Library (cont.):

Simpson, Lesley
The Encomienda in New Spain: The Beginning of Spanish Mexico
1966, Berkeley, this ed. only

Goodall, Norman
The Ecumenical Movement
1961, London, Oxford

Masiello, Ralph
The Intuition of Being According to the Metaphysics of St. Thomas Aquinas
1955, Catholic University Press, Wash. D.C.

Cornell University Library:

Pyatakov, M.L.
"On the Seasonal Fecundity Changes in Claddcera"
1956, Zoologicheskii Zhurnal, Vol. 35, pp. 1814-1819

Toro Y Gisbert, M. de
"Concemos el Texto Veradero de las Comedias de Calderon"
1918, Boletin de la Royal Academia Espanola, Madrid

Isemonger, R. M.
Snakes of Africa Southern, Central and East
1962, Tri-Ocean

Taylor, H. C.
"L.C.Gray: Agricultural Historian and Land Economist"
1952, Agricultural History, Vol. 26, Oct., p. 165

Filled Request

Cornell University Library (cont.):

Schmidt, L. B.
Topical Studies and References in the Economic History of American Agriculture
1919, McKinley Pub. Co., Phila.

Elton, G. R.
"Why the History of the Early Tudor Council Remains Unwritten"
1964, Fondazione Italiana per la Storia Administative Annal, Vol. 1

Berenger, Calvet
"Calorimetry by Compensation"
1927, Journal de Chemie Physique, Vol. 27, pp. 325-345

Demotte, G. J.
La Tapisserie Gotique
1924, Demotte, N.Y.

Engineering Societies Library:

Rules and Regulations for the Construction and Classification of Steel Ships
1967, Lloyd's Register of Shipping

Penn, W. S.
GRP Technology Handbook to the Polyester Glass Fibre Plastics Industry
1966, Transatlantic

Gareri, F. J.
"Finishing Better Gears at Lower Cost"
1966, Machinery, Vol. 72, No. 11, pp. 128-129

(continued)

Exhibit 3.9
(continued)

Filled Request

Engineering Societies Library (cont.):

Chalpin, E. S.
Flexible Shaft Couplings for Precision Equipment
1964, Electromechanical Components and Systems Design No. Elec. Des.

Tothill, J. T.
"Ships in Restricted Channels"
1967, Marine Technology, Vol. 4, No. 2, pp. 111-128

Motefindt, Hugo
"Die Erfindung des Drehschemels an Vierradigen Wagen"
1919, Geschichtsblatter fur Technik und Industrie

Cohn, S. B.
"Problems in Strip Transmission Lines"
1955, Inst. of Radio Engr. Transact on Microwave, Theo. & Techn.

New York Academy of Medicine Library:

Adams, W. C.
History of Dentistry in Oregon
1956, Portland, Binfords

Bechelli, L. M.
"The Leprosy Problem in the World"
1966, Bull. of World Health, Vol. 34, pp. 827-857

Filled Request

New York Academy of Medicine Library (cont.):

Davidson, A. R.
"Six Years Follow up of Diphenylthiourea Treatment"
1965, Leprosy Rev., Vol. 36, July

Huffstadt, A. J. et al
"Behandeling Van Enkele Oorschelpanomalieen"
1964, Nederlandsch Trjdschrift voor Geneeskunde, Vol. 108, pp. 640-655

Deropp, R. S.
Drugs and the Mind
1957, St. Martins Press

Reynolds, E. S.
"Use of Lead Citrate at High PH as an Electronopsque Stain"
1963, Jnl. of Cell Biology, Vol. 17, No. 1, pp. 208-212

Carter, J. P.
"Aflatoxins: A Review Article"
1966, West African Med. Jnl., Vol. 15, pp. 193-195

Renner, R. E. & Maher, B. A.
"Effect of Construct Type on Recall"
1962, Jnl. of Individual Psychology, Vol. 18, No. 2, pp. 177-179

New York Public Library:

Hinder, R. A.
"Ethological Models and the Concept of Drive"
1956, British Jnl. for the Philosophy of Science, Vol. 6, pp. 321-331

(continued)

Exhibit 3.9
(continued)

Filled Request

New York Public Library (cont.):

Konstantenov, D.
"The Result of Soviet Persecution of the Orthodox Church"
1965, Bull. of the Institute for the Study of the USSR, Vol. 12 SS

Robertson, David
"Theory of Pendulums and Escapements"
1929, British Horological Jnl., Jan., pp. 128-131

Ferrata, G. S.
"Padri Figli NLI Stessi"
1964, Renascimento, May 16

Ruehlmann, K.
"Silacyclene 4 Preparation and Reactions of Siloles...."
1965, Zeitschrift fur Chemie, Vol. 5, No. 9, 354

Pratt, I. A.
List of Works in NYPL Relating to Muhammadan Law, Dir. RJH Gottheil
1907, NYPL, 10 pages

Gullace, Giovanni
"Sartre et Descartes le Probleme de la Liberte"
1966, Revue de l"Universite Laval, Vol. 21, pp. 107-125

Clendenning, E. W.
"Eurodollars: the Problem of Control"
1968, Banker, Vol. 118, pp.321-322 FF

Filled Request

New York Public Library (cont.):

Ballis, W. B.
"A Decade of Soviet Japanese Relations"
1964, Studies on the Soviet Union, Vol. 3, No.3, pp. 128-157

Smiley, Ellen
"Pitch Recognition"
1965, Denison Univ. Scientific Laboratories, Vol. 46, pp. 137-143

New York University Library:

Shoulder, James
History of the USA Under the Constitution, Vol. 1
1964, Dodd

Simonds, R. H.
Safety Management: Accident Cost and Control
1963, Ill., Irwin

Lenanton, C.M.A.
Napoleon's Viceroy
1966, Hodder

"Proceedings Int. Conf. on Cosmic Rays and the Earth Storm, Kyoto"
1962, Physical Society of Japan, Tokyo, pp. 146-156

Nelson, T. A.
The Impact of Leases on Financial Analysis
1963, Bureau of Business and Economic Research

(continued)

Exhibit 3.9
(continued)

Filled Request	Filled Request
Teachers College: Morphet, E. L. Educational Organization and Administration 1967, Prentice Hall Union Theological Seminary Library: Pelster, F. "Richard von Knapwell op Seine Questiones Disputae und Sein Quddli" 1928, Zeitschrift Fuer Katholische Theologie, Innsbruck, Vol. 52, p. 47 Grundmann, Walter "Verstandniss und Bewegung des Glaubens im Johannes Evangelium" 1960, Kerygma und Dogma, Vol. 6, pp. 131-154	Union Theological Seminary Library (cont.): Cumont, F. V. M., 18 8, Ed. Textes et Monuments Figures Relatifs aux Mysteres de Mithra 1899, Bruxelles Bowker, G. W. "Prophetic Action and Sacramental Form" 1964, Studia Evangelica, Vol. 3, No. 2, pp. 129-137 Alt, A. "Die Deutung der Meltgeschichte im Alten Testament" 1959, Zeitschrift fur Theology und Kirche, Vol. 56, pp. 129-137

Exhibit 3.10

REQUESTS NOT FILLED IN THE NYSILL NETWORK

Request	Request
Freedman, R., et al Principles of Sociology 1956, Holt, N. Y.	Lipman, Jean American Folk Painting 1966, Potter
Reese, H. H. The Kellogg Arabians, Their Background and Influence 1958, Borden, Calif.	Huggers, et al "Glucose in Blood and Urine" 1967, Lancet, 2
Wood, William New England's Prospect 1966, Franklin	Norris, Edwin Ancient Cornish Drama, 2 Vols. 1859, Oxford Press
Edelman, Nathan, Ed. 17th Century Attitudes Toward the Gothic, Vol. 3 only 1961, Syracuse	Tyabji Husain Badruddin Badruddin Tyabji: A Biography 1952, Thacker, Bombay
Lewis, Roger Woodworking Knopf	Gukovski, G. A. Realizm Gogolia 1959, Moscow
Rees, P. K. & Sparks, F. W. Algebra, Trigonometry and Analytic Geometry 1967, McGraw	Paesler, William "Romanische Weltgerichtetafel im Vatikan," etc. 1938, Romisches Jahrbuch fur Kunstgeschichte, Rome
Kessel, A. Cyclical Behaviour of the Term Structure of Interest Rates 1965, Columbia	Bachelier, L. J. Theorie de la Speculation 1900 Gauthiers Villars, Paris
The Macneil of Barra Robert Castle in the Sea 1964, Collins	Chaucer, Geoffry The Canterbury Tales: Translated into Modern English, by Neville Coghill 1956, London, Folio Society
Barnard, C. I. Functions of the Executive 1938, Harvard, 4	Sheridan, H. H. Standards for Juvenile and Family Courts 1966, U.S. Dept. Health, Education & Welfare; Children's Bureau, Pub. No. 437

PART III:

NYSILL, PHASE II: THE FALL, 1968, EXPERIENCE

> The network currently being developed in New York State to link public, educational, and some special libraries is a prototype of one kind of network that we will certainly see within the next five to ten years in several of the wealthier states...
>
> --Technology and Libraries,
> one of the series of studies
> done for the National Advisory
> Commission on Libraries (System
> Development Corp., 1967, p. 70)

Chapter IV

THE NATURE OF NYSILL REQUESTS

We have seen the wide variety of needs which New York libraries attempt to meet through interlibrary loan. Of the items requested during 1968, the majority were sent to local library systems. Only a portion of these were referred to other resources. Outside the public library systems, universities and special libraries carried on a heavy traffic in interlibrary borrowing and lending. Thus the range of material requested runs from fairly low-level items which might be found in any good general library to exceedingly rare and valuable research tools available only in large public libraries or in specialized research libraries. As the only statewide general purpose interlibrary loan service in New York, NYSILL requests mirror this range of material. They come from every type of originating library: public, academic and special. They are sent to resources ranging from general public library collections to the special holdings of several of the nation's most respected research libraries. A careful examination of the nature of NYSILL requests, then, is useful in obtaining an understanding of both the system itself and the general problems encountered in dealing with interlibrary loan in the state.

A BRIEF OVERVIEW OF NYSILL VOLUME AND PERFORMANCE

A detailed assessment of the operating characteristics of the NYSILL network has been reserved for Chapter V. It will be useful, however, to anticipate that material here, so that the review of the characteristics of requests can take place in its proper context.

In 1968, the State Library received over 87,000 requests for interlibrary loans--a figure which excludes requests for special service items (largely films). All of these items were NYSILL requests in the sense that any one of them could draw on the network if this seemed desirable. For several reasons, this figure underestimates the overall volume of interlibrary loans which the State Library handles; in particular, items from the Upper Hudson Library Federation, which would be TWXed to Albany if that system's headquarters were not so conveniently located near the State Library, have been undercounted. These requests are given directly to the various departments of the State Library, and only reach the ILL unit when those departments cannot fill a request.

NYSILL Volume, Recent Experience and Future Expectations

A comparison on a monthly basis of ILL volume at the State Library for 1966, 1967 and 1968 is given in Table 4.1. It is apparent from inspection of these data that volume is growing rapidly and that seasonal variation in the load is quite marked; as was noted in previous studies, interlibrary loan loads follow the academic calendar. Some decrease in the load is evident in the last months of 1968, a drop which is

Table 4.1

MONTHLY VOLUME OF INTERLIBRARY LOAN REQUESTS RECEIVED AT THE NEW YORK STATE LIBRARY FOR 1966, 1967 AND 1968

Month	1966	1967	1968
January	4,984	5,579	6,749
February	6,681	6,885	9,332
March	8,359	8,465	10,018
April	5,770	6,463	8,057
May	4,409	4,816	6,447
June	4,515	3,896	5,217
July	4,464	4,445	6,555
August	4,351	4,486	5,404
September	4,520	5,006	6,032
October	6,879	8,615	9,248
November	6,430	7,976	7,588
December	5,340	7,009	6,573
Total	66,702	73,641	87,220

ANALYSIS OF VARIANCE: Effects of yearly growth rates and seasonal fluctuations on monthly ILL volume:

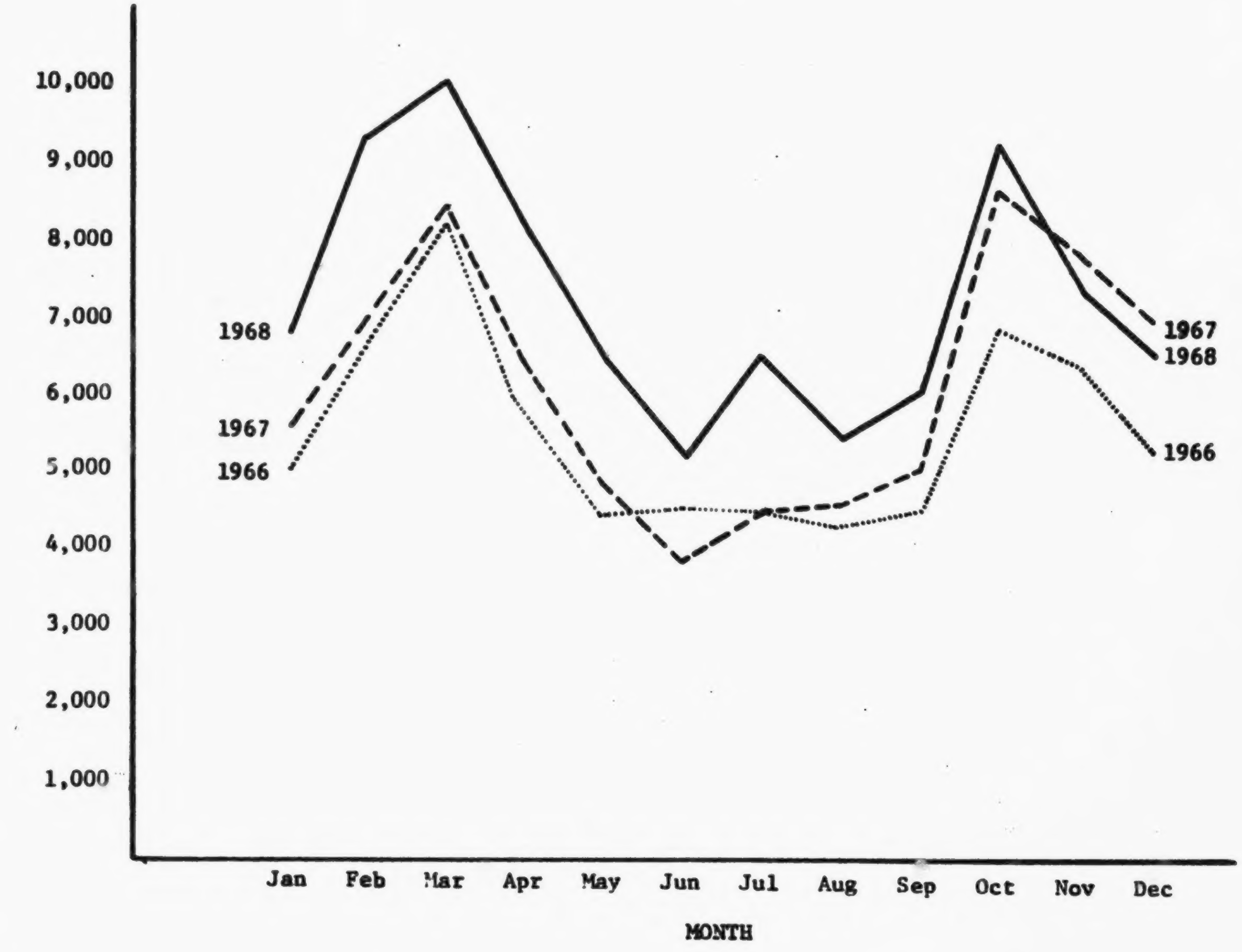
Portion of variation in monthly volume accounted for by seasonal fluctuations:......... 74%

Portion of variation in monthly volume accounted for by yearly growth rates:................. 19%

Portion of variation in monthly volume accounted for by joint effects of seasonal fluctuations and yearly growth rates:....... 7%

Total:.......................100%

Figure 4.1. Number of Interlibrary Loan Requests Received at the New York State Library, by Month, for 1966, 1967 and 1968



at least partially due to the creation of alternative state-funded resources: the two regional networks and the provision for direct academic use of referral libraries. The seasonal effects are perhaps more easily observed in Figure 4.1, which illustrates the data of Table 4.1 in a graph. The load peaks shortly after the beginning of each academic term (most schools in New York are on a semester system, which adds to this effect). The impact of the seasonal variation in determining the ILL load for a given month is considerably greater than any other factor; an analysis of variance[1] performed on the data in Table 4.1 showed that almost three-quarters of the difference in monthly volumes over the past three years was due to seasonal effects, rather than to overall growth. This finding has major implications for the staffing of interlibrary loan operations, for it indicates that student assistance, traditionally a source of personnel for libraries, will be least available when the work load is heaviest.

The volume figures for the three years (1966, 1967, 1968) were extrapolated to produce projections of future demands. The tentative nature of such projections must be underscored. It is assumed that present trends will continue, an assumption which is easily challenged due to the possibilities of attracting new library patrons, increased publicity of existing services, etc. It further assumes that the experience of the past three years is an adequate measure of these trends. The projections were done in a monthly basis, using the combined average rate of growth for 1966-67 and 1967-68 to establish future rates. This has the effect of apportioning unusual growth rates in either of the two periods evenly across the entire time span. Final figures were combined into quarterly estimates, to smooth out excessive projections for individual months which resulted from an exaggeration of current trends. The overall growth rate was adjusted downward to allow for the existence of regional networks; otherwise the data would not reflect this new development. The final growth rate developed was 1.129 per annum. Results are given in Table 4.2.

If the assumptions entering into the projections are reasonable, the table shows that by 1970 the volume of ILL at the State Library will have exceeded the 100,000 mark. More striking, by 1975 it will have more than doubled. This result is mathematically fixed once we grant the given growth rate of 1.129 annually; the laws of compound interest apply. Such geometric increases cannot, of course, continue forever. At the given rate of increase, ILL will double every six years. Eventually a point of balance will be found, and the load will begin to level off.

Analyzing NYSILL: The Sample and Its Validity

This study would have been needlessly expensive if it had attempted to handle data on all of the more than 23,000 interlibrary loans sent to the State Library during the monitoring period. Changes in procedures at

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[1] A statistical procedure for assigning the causes of variation in tabular data. See Helen Walker and Joseph Lev, Statistical Inference (New York: Holt, Rinehart and Winston, 1953), pp. 196-229.

Table 4.2

PROJECTIONS TO 1969, 1970 AND 1975 OF ILL VOLUME AT THE STATE LIBRARY, BY QUARTERLY PERIODS[a]

Quarter	Actual 1968 Volume	Projections		
		1969	1970	1975
1st: January to March	26,099	29,000	32,000	57,000
2nd: April to June	19,721	22,000	26,000	50,000
3rd: July to September	17,991	20,000	23,000	46,000
4th: October to December	23,409	26,000	30,000	56,000
Total: All Quarters	87,220	97,000	111,000	209,000

a. All estimates rounded to the nearest thousand. Projections assume an overall growth rate of 1.129 per annum.

the State Library made sampling more feasible than in the past, however, and the use of a different methodological approach was anticipated; a change which would permit the work to proceed with a smaller pool of data.

Details on the methods used to draw the sample are included in Appendix B. The evaluation of the results is included here, however. Table 4.3 shows the number of sample cases drawn, by month; the number of actual requests represented by these cases; the number of items recorded independently by the State Library during each month; the discrepancy between the sample and the State Library's tally, in terms of actual requests; and the same discrepancy in terms of numbers of cases in the sample. The fit of the sample to requests for the month of October is perfect in terms of overall volume. In November and December, there is a small but increasing tendency for the sample volume to over-estimate State Library totals. This is because records supplied by the ILL unit (which were used to draw the sample) contained a number of cases for which no data whatever existed other than the presence of an identification number for a request. Such cases could represent either simple failure to record information, or an attempt to anticipate loans which never actually existed by listing ID numbers in advance of receipt. Checks with personnel at Albany indicated that both of these reasons could have applied. With this in mind, these "no data" cases were retained in the sample, on the grounds that excluding them could introduce a bias in favor of NYSILL. Since cases with no data are excluded from statistical calculations[2] throughout most of this report, in retrospect these extra items have had little effect on the conclusions drawn in this study. In general, the data throughout the report, as well as in Table 4.3, indicate that the sample is indeed highly reliable.

An Overview of Outcomes for NYSILL

A detailed review of NYSILL performance will be presented in Chapter V, but some anticipation of that review is necessary. Table 4.4 gives answers to the major operational issues. The overall proportion filled, of all requests sent to the State Library, reached 64% during these first months of NYSILL, Phase II. This is a major improvement, and (as will be demonstrated below and in later chapters) is probably due not just to Phase II modifications but to continual effort throughout NYSILL's existence. Evidence for this may also be found in previous reports, which

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[2] It should be noted that the academic conventions normally in force for the presentation of statistical data have often been ignored here. These have to do with the provision of case bases, detailed accounting for no answers, and other non-substantive information necessary for others to be able to manipulate the data. Such conventions are essential for scholarly publication, but introduce quite a bit of complexity for the reader not trained in research methods. To keep tabular data as straightforward as possible, then, we have eliminated all numbers which did not have some degree of substantive significance.

Table 4.3

COMPARISON OF 10% SAMPLE OF NYSILL REQUESTS WITH VOLUME RECORDS OF THE NEW YORK STATE LIBRARY

	Month			Total
	October	November	December	
Number of cases in 10% sample	925	779	694	2,398[a]
Number of actual requests represented by sample[a]	9,250	7,790	6,940	23,980
Number of requests tallied in State Library records	9,248	7,588	6,573	23,409
Net discrepancy	+ 2	+ 202	+ 367	+ 571
Discrepancy within 10% sample[b]	-	+ 20	+ 37	+ 57

a. "Number of cases in 10% sample" times 10.
b. "Net discrepancy" divided by 10.

Table 4.4

OVERVIEW OF NYSILL, OCTOBER-DECEMBER 1968 (10% SAMPLE OF ALL REQUESTS AT STATE LIBRARY)[a]

Category	Month			Total
	October	November	December	
Total Sample of Requests Received by State Library	925	779	694	2,398
Overall Outcomes: Percent				
...Filled	66%	64%	60%	64%
...Not filled	34	36	40	36
Outcomes at State Library: Percent				
...Filled	47%	46%	47%	47%
...Referred	32	34	28	32
...Neither filled nor referred	20	21	25	22
Outcomes at Referral Libraries: Percent of Referrals				
...Filled	57%	56%	46%	54%
...Not filled	43	44	54	46

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a. Requests pending or with unknown status excluded. Total pending = 12, total unknown = 254. Percents will not necessarily total 100, due to rounding.

in conjunction with these findings shows that the increased success has come about gradually, rather than all at once. In the first four months of the experiment, NYSILL's overall filling rate was 53%; in the second four months, 55%; in the next seven months, 60%. The data for the most recent phase of the study shows some downward trends within the three-month study period, but these are not likely to be reliable. Previous study and interviews conducted for the present work show that this may be a seasonal effect, due to the reluctance of some libraries to mail loans during the holiday period in December; special considerations (in particular, the Hong Kong Flu epidemic) are known to have affected this particular period; and a few requests still outstanding early in 1969, when the data was encoded, have been filled in subsequent weeks.

Data in the table show that, as has been noted in earlier studies, most of the improvement in filling has come about through better use of the referral system. The proportion of items referred rose to 32% during the last months of NYSILL, Phase I (for details see Appendix C), and has remained at about this same level during the three months reviewed in this analysis of Phase II. At the same time, the portion of items filled by referral libraries has increased from 42 to 57%. Previous studies reported somewhat lower success rates than this for the referral libraries, but this apparent discrepancy is due to a change in perspective, not to error: the lower rates previously reported (and repeated in the analysis in Chapter V) count requests twice if they were referred twice, three times if they were referred three times, and so on, to properly reflect the performance of resources rather than that of the system as a whole.

This use of several different success rates to describe the same data is important enough to warrant the detailed accounting shown in Table 4.5. The problem is to distinguish between the contribution of the referral libraries to NYSILL as a whole, and the actual ability of these libraries to fill the items they receive. The first entry in the table is the percentage of all requests which were filled at the State Library. The second line is the percentage of all requests which were sent to referral libraries. The third line is the percentage of these referrals which were filled. The fourth line combines the proportions of all requests which were referred (line 2) and the portion of these which were filled by referral libraries (line 3). The result is the percentage of all requests which were supplied by the referral libraries. When this proportion is added to that filled at the State Library, a total percentage filled results. It is apparent from these data, which compare NYSILL outcomes from the program's inception to the present time period, that even a very substantial improvement in performance on the part of the referral libraries will show very little overall effect unless the portion of referrals also rises.

The above analysis depends on percentages and thus minimizes the effect of absolute increases in volume in the system. When these are taken into account, the improvement since NYSILL began is rather impressive. There is no way to arrive at an exact comparison of 1967 with 1968, since NYSILL did not exist during the first months of the earlier year, nor was

Table 4.5

COMPARISON WITH PREVIOUS STUDIES: NYSILL OUTCOMES (REFERRING AND FILLING)

	Study:		
	1st NYSILL Report[a]	Last Months, Phase I[b]	Phase II[c]
(1) Percent of Total Filled by State Library	44%	44%	47%
(2) Percent Referred	26	32	32
(3) Percent Filled, of Referred Only	42	49	57
(4) (2) x (3) = Portion of Total Filled by Referral Libraries	11	16	18
(5) (1) + (4) = Overall Portion Filled	55	60	65[d]

a. From *An Evaluation of NYSILL* (1967: Nelson Associates, New York), pp. 24-25.
b. From Appendix C of present study.
c. From Table 4.4.
d. Does not match actual total of 66%, due to accumulated rounding error.

Table 4.6

IMPROVEMENT IN NYSILL: ESTIMATION OF NUMBERS OF FILLED ITEMS WHICH WOULD NOT HAVE BEEN FILLED BEFORE, AND WHERE FILLED

	1967	1968	Increase, 1967-1968	Percent Increase	Expected Increase[a]	Difference, Actual Less Expected
Total Volume	73,641	87,220	13,579	118%	-	-
Filled at State Library	32,402	40,993	8,591	127	5,832	2,759
Referred	19,147	27,910	8,763	146	3,446	5,317
Filled Referrals	8,101	15,700	7,599	194	1,458	6,141
Total Filled	40,503	56,693	16,190	140	7,290	8,900

a. Increase which would take place if all outcomes stayed the same except overall growth; e.g., 18 percent times 1967 data.

it monitored during the summer of 1968. For working purposes, however, an analysis can be made based on two assumptions: that outcomes reported for March-November, 1967, can be applied to overall volume for 1967, and that outcomes for the present study can be applied to overall volume for 1968. The result will not be a precise description for these two years, of course, but it will be an accurate measure of change between 1967 and the Fall of 1968, in terms of annual volume. The data are shown in Table 4.6.

Inspecting the column for 1967-68 increases first, it is apparent that the State Library supplied almost 8,600 more items in 1968 than in the previous year; that the number of filled referrals nearly doubled; and that the total number of items supplied by NYSILL increased by more than 16,000 loans. Of course, volume as a whole also increased; the crucial issue is the degree to which these gains were due to actual improvements, rather than increased use. To estimate this factor, the "expected increase" column of the table reports the additional number of items which would have been in each category if nothing had changed other than overall volume. For example, if the 32,402 items supplied in 1967 by the State Library are multiplied by the overall increase rate of 118%,[3] the result is 5,832 additional loans. When the estimates are complete, the difference between these and actual outcomes for 1968 has been used as a measure of change due to something other than overall growth. The results appear in the last column of the table, and indicate that NYSILL now supplies 8,900 more items per year than would be anticipated on the basis of growth alone, and that almost 70% of these are provided by referral libraries. When it is noted that the referral network is the major innovative feature of NYSILL, these results take on still more significance. The State Library would be heavily engaged in interlibrary loan activities regardless of NYSILL's existence. It is the performance of the referral network (and the State Library's administration of that network) which is the major consideration in a review of this program.

PATRONS, SUBJECTS, AND LIBRARIES: A DESCRIPTION OF NYSILL REQUESTS

The previous studies of NYSILL provided some tentative data describing the characteristics of the requests. In particular, the close relationship between academic uses of interlibrary loan and the academic calendar was underscored. Both faculty members and students tended to use NYSILL for research and study purposes, and these motivations were reflected in the pattern of volume over time which was revealed in the earlier studies.

A somewhat different perspective has been adopted for the present analysis. First, interactions over time have been treated only briefly, to establish the consistency of the earlier findings. Detailed review of time effects is impossible in the present work, because the entire study took place within a single season (Fall 1968). Instead, a much more detailed analysis has been made of patron statuses, subject categories, and the characteristics of originating libraries. For each request, information was encoded which was not available in the earlier studies: a "business and professional" patron status code (which, unfortunately, was so seldom used that it was necessary to return to the original division between faculty, students, and all others); detailed Dewey Decimal subject codes (when supplied by librarians); a separate subject code devised especially for this study (described in detail below); and, from the Nelson Associates sample frame for New York State libraries (see Appendix A), information on originating library types, regional locations, and size (see Chapter II as well). A description of the NYSILL requests in terms of these variables follows.

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[3] The lower rate of 1.129 used previously is derived from 1966-68 data; this data reflects only change from 1967 to 1968.

Patron Status: Who Uses NYSILL?

Patrons submitting requests to the State Library can be identified in one of four categories. There are three explicit codes given to requests which are eligible for referral: faculty, student and "other" (including the seldom-used "business" code mentioned above). The fourth code is simply "Patron Status Unknown," a condition which generally applies to those items which librarians choose not to send to referral libraries. Thus the "unknown" status has some substantive meaning and has been retained in the analysis below. Exhibit 4.1 is a listing of materials requested by the four categories of patrons.

Table 4.7 gives the distribution of NYSILL requests among these four groups. Faculty accounted for 202 cases; students, 365; "others," 522: a total of 1,089 requests which had a known status, or about 45% of the total. It should be noted that these data do not precisely reflect the distribution of actual patrons. Patrons can make more than one request, and if (for example) faculty members are more prone to do this than others, the data presented here will tend to exaggerate their actual number.

The remaining columns of the table provide some general information about characteristics of the requests associated with each kind of patron. As expected, those with known status are mostly eligible for referral, those with unknown status mostly ineligible. Actual referrals are made most often for faculty requests, followed by "others," students, and those with unknown status, in that order. The effect of the referral system shows up strongly in outcomes, with those with known statuses gaining very high success rates. Within this group, however, the ability of the State Library to handle student requests represents a countertrend. Fully 80% of these were filled, despite the lowest referral rate of any of the three kinds of known patrons.

A breakdown of patron status for the NYSILL requests for each month of the study is given in Table 4.8. No really major changes are revealed over time, nor were any expected. Small decreases in the use of the system by eligible patrons occur toward the end of the period, when the holiday period would intrude on normal ILL patterns. The percentages understate these effects, since overall volume also dropped over the three months.

Table 4.7

PERCENT OF NYSILL REQUESTS ELIGIBLE, REFERRED, AND FILLED, BY PATRON STATUS

Patron Status	Number of Requests in 10% Sample	Percent...		
		Eligible	Referred	Filled
Faculty	202	94%	53%	75%
Student	365	93	39	80
Other	522	91	47	67
Unknown	1,309	11	20	54
All Cases	2,398	48%	31%	64%

Table 4.8

PATRON STATUS OF NYSILL REQUESTS, BY MONTH (10% SAMPLE)

Patron Status	Month			Total
	October	November	December	
Faculty	9%	8%	8%	8%
Student	15	17	13	15
Other	23	24	18	22
Unknown	54	51	61	55
Total	101%[a]	100%	100%	100%

a. Does not add to exactly 100% due to rounding.

Exhibit 4.1

NYSILL REQUESTS BY PATRON STATUS

FACULTY

Bowker, G.W.
"Prophetic Action and Sacramental Form"
1964, Studia Evangelica, Vol. 3, No. 2, pp. 129-137

Invitational Conference on Testing Problems, Proceedings, 1949
1949, Educ. Testing Serv.

Jordan, Philip D.
"The Funeral Sermon, A Phase of American Journalism"
1933, Am. Bk. Collector, Vol. 4, pp. 177-188

Monticelli, Fr. S.
"Appunti Sui Cestodaria"
1892, R. Academ. Delle Scienze Fisiche e Matematiche Naples, Vol. 5 Ser.

Rozanov, V.V.
"Svoboda i Vera"
1884, Russkii Viestnik Zhurnal Literaturnyi i Politicheskii, Moscow

Sand, O.
"New and Comment Deciding What to Teach"
1963, Elem. School Journal, Oct., pp. 1-10

Toro y Gisbert, M. De
"Concemos el Texto Veradero de las Comedias de Calderon"
1918, Boletin de la Royal Academia Espanola, Madrid

STUDENT

Davidson, Susannah
"School Phobia as a Manifestation of Family Disturbance"
1961, Jnl. of Child Psychology and Psychiatry

STUDENT (continued)

Davis, F.
"Chairs with Pierced Backs"
1957, Illustr. London News, Vol. 230, Mar. 2, p. 340

Kaplan, M.M.
"The Lab in Diagnosis and Prevention of Rabies"
1966, Monograph Serv., Vol. 23, pp. 11-16

Laforet, Carmen
Nada
1957, Barcelona, Ediciones Destion

Lincoln, Anna T.
Wilmington, Del. Three Centuries under Four Flags, 1609-1937
1937, Rutland, Tuttle Pub. Co.

Markham, Clement R.
The War Between Peru and Chile 1879-1882
1882, S. Low, London

Pantin, C.F.A.
"The Elementary Nervous System"
1952, Royal Soc. of London, Proc.

Pelster, F.
"Richard Von Rnapwell op Seine Questiones Disputae und Sein Quodli"
1928, Zeitschrift fuer Ratholische Theologie, Innsbruck, Vol. 52, p. 47

Policard, A.
"The Problem of Lysosomes in Rat Liver, a Critical Review"
1965, Nouvelle Revue Francaise d' Hematologie, Vol. 5, No. 4, pp. 663-675

Stuart, D.C.
Stage Decoration in France in the Middle Ages
1910, M.S.

Zimmern, Heinrich
The Babylonian and the Hebrew Genesis
1901, D. Nutt, London

(continued)

Exhibit 4.1
(continued)

OTHER

Bilmanis, Alfred
A History of Latvia
1951, Princeton U.

Cell, G.C.
Rediscovery of John Wesley
1935, Holt

Cooney, D.M.
Chronology of the U.S. Navy, 1775-1965
1965, Watts, N.Y.

Cotton, A.D.
"Clare Island Survey of Marine Algae"
1912, Royal Irish Acad. Proceed., Vol. 31, Part 15, p. 114, Plates 57-8

Griffith, D.E.
Human Relations in School Administration
1956, Appleton

Hague, Bernard
Instrument Transformers, Their Theory, Characteristics and Testing
1936, Pittman, London

Heilmann, A.W.
Principles and Practices in Teaching Reading - 2nd Ed.
1967, Merrill, Chicago

Lipman, Jean
American Folk Painting
1966, Potter

Orage, A.R.
Nietzche in Outline, An Aphorism
1910, McClurg, Chicago

Palmer, S.H.
A Psychology of Murder
1962, Apollo

Talley, T.W.
Negro Folk Rhymes
1968, Rennikat PR

UNKNOWN

Delacato, Carl
Neurological Organization and Reading
1966, Thomas

Edward, Newton
Law Governing Teaching Personnel
1962, Interstate

Danforth, F.G.
New England Witchcraft
1965, Pageant

McGraw, Eloise
Moccasin Trail
1952, Coward

Murphy, S.D.
"Effects on Animals of Exposure to Auto Exhaust"
1963, Arch. of Environmental Health, Vol. 7, p. 60.

Stebbins, R.C.
Amphibians and Reptiles of Western North America
1953, McGraw

Tatum, G.L.
Disloyalty in the Confederacy
1934, U. of North Carolina Press, Chapel Hill, N.C.

Troward, Thomas
Edinburgh Lectures on Mental Science
1927, Dodd

Subjects: What Information was Sought in NYSILL?

In past reviews of NYSILL, subject matter was analyzed by inspecting the distribution of requests in each of the several major Dewey Decimal classes. This presents some problems for a detailed analysis, since Dewey codes are not supplied for all requests. Codes are assigned by title, and thus raise problems of ambiguity. In addition, the actual content of the categories does not always provide a good fit to present-day divisions of scholarly labor.

No subject scheme can entirely avoid ambiguity. However, by devising a separate subject classification to be applied to all requests by the consultants, the problem of missing data would be solved and a better fit to appropriate library collections might be possible. In addition, the availability of two independently derived subject codes would make it possible to test the degree of agreement between Dewey and "Nelson"[4] classes for each request, and thus isolate those subjects in which the ambiguity problem is most severe.

The categories for the Nelson subject classification were derived from a list of educational and occupational fields used in social research at the National Opinion Research Center of the University of Chicago. Several classes were deleted ("housewife") or added ("biography") to change the list from one dealing with people to one appropriate for written materials. The list included a number of subjects which are not explicitly named in the State Library's short version of the Dewey scheme: for example, biophysics, microbiology, and social psychology. The final list of subject classes (included as part of the coding specifications in Appendix B) provided more than 50 categories. After inspecting the distribution of cases among these, and allowing for compatibility with the Dewey classes, a condensed list was developed which combined the data into 22 separate subjects. One category, "popular nonfiction," was included to pick up hobby books, materials on gardening, cookbooks, and the like. The Dewey numbers which had been supplied were collapsed into a similar grouping, to facilitate comparisons. The number of NYSILL cases in each of the Nelson subject classes is given in Table 4.9, along with some basic information on outcomes for each group.

The subjects most often requested are medicine and education, followed by philosophy and religion. Sizable numbers of requests are included in traditional academic disciplines: the physical sciences, biological sciences, social sciences, and humanitites. Academic and professional subjects were most likely to be eligible, and also, with the exception of education, more likely to be referred. The highest filling rates were also in these fields, although there are some significant exceptions to this trend: requests for items in sociology, foreign language and literatures, philosophy and religion, fine arts, history other than American history and engineering were all less likely to be filled than the typical request. The strength of the State Library collections in education is shown clearly, where 74% of such items were filled overall,

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[4] Called "Nelson" for want of a better name, not because this particular list has any unusual merits; a number of existing schemes could have been used.

Table 4.9

PERCENT OF NYSILL REQUESTS ELIGIBLE, REFERRED, AND FILLED, FOR SELECTED SUBJECT CATEGORIES (CODES ASSIGNED BY SURVEY, NOT DDC)

Subject	Number of Requests in 10% Sample	Percent...		
		Eligible	Referred	Filled
Natural Sciences:				
Physical Sciences and Mathematics	99	70%	43%	67%
Biological Sciences (including Anthropology)	126	61	35	71
Social Sciences:				
Economics	81	62	40	68
Geography	34	59	29	56
Political Science	108	61	34	66
Sociology, Social Welfare	101	43	32	54
Psychology	56	57	38	64
Humanities:				
Classics, plus English Language and Literature	110	64	33	68
Foreign Languages and Literatures	43	51	47	56
Philosophy and Religion	147	59	41	58
Fine Arts	111	47	32	56
American History	86	44	19	66
Other History	91	56	41	57
Professional Subjects:				
Business, Public Administration	70	49	30	64
Engineering, Technology	75	64	49	56
Education	190	56	20	74
Medicine	243	62	28	75
Law	36	64	28	66
Others:				
Fiction	117	36	23	46
Biography	47	43	21	66
Popular Nonfiction	78	37	26	58
Miscellaneous; Generalities	36	39	14	58
Subject Unknown	313	-	30	64
Total, All Cases	2,398	48%	31%	64%

Table 4.10

ASSOCIATION (YULE'S Q) BETWEEN SUBJECT CATEGORIES AND PATRON STATUS

Subject	Patron Status			
	Faculty	Student	Other	Unknown
Natural Sciences:				
Physical Sciences and Mathematics	+.46	-.19	+.10	-.26
Biological Sciences (including Anthropology)	+.16	-.15	-.11	+.10
Social Sciences:				
Economics	-.19	+.50	-.56	-.04
Geography	+.05	-.25	+.21	-.10
Political Science	+.38	+.03	-.17	-.06
Sociology, Social Welfare	-.56	-.15	.00	+.20
Psychology	-.45	-.23	+.10	+.14
Humanities:				
Classics, plus English Language and Literature	-.36	+.24	.00	-.08
Foreign Languages and Literatures	+.67	-.49	-.42	+.02
Philosophy and Religion	+.24	-.11	+.13	-.16
Fine Arts	-.36	-.04	+.03	+.10
American History	-.36	+.07	-.03	+.08
Other History	.00	+.10	-.14	+.06
Professional Subjects:				
Business, Public Administration	-.56	+.10	+.10	+.02
Engineering, Technology	-.12	-.49	+.38	-.06
Education	+.11	+.03	+.08	-.12
Medicine	.00	+.34	-.23	-.10
Law	+.30	+.31	-.08	-.30
Others:				
Fiction	-.69	-.68	+.15	+.32
Biography	+.15	-.55	-.05	+.18
Popular Nonfiction	-.56	-.43	+.32	+.06
Miscellaneous; Generalities	-.27	.00	-.17	+.20

despite a referral rate of only 20%. Recalling the similar countertrend for requests from students, one might surmise that there exists a close relationship between requests from students and education as a subject, but Table 4.10 shows that this is not the case.

The possibility of such relationships between these subjects and each of the four patron statuses is tested in Table 4.10. The numbers in this table are correlation coefficients[5] which reveal the existence and direction of an association, while allowing for the fact that some patrons or subjects are more common, in general, than are others. Arbitrarily ruling out values between -.20 and +.20 as likely to be insignificant, of no substantive use, or both, the table indicates that requests in the physical sciences are unusually likely to be from faculty members; this same association holds for political science, foreign languages and literature, philosophy and religion, and law. For students, requests are especially likely to be for economics, classics, and medicine. Only the "popular nonfiction" category and engineering show any sizable positive associations with the eligible others. The only significant association for those with unknown status is with the category of fiction, an outcome which is entirely consistent with the restrictions and operating rules of NYSILL.

A search for negative associations, which imply a less-than-usual likelihood for such requests, is also interesting. Faculty members tend not to request items in sociology, psychology, classics, the fine arts, American history, business, fiction, popular nonfiction, or the miscellaneous category (which includes journalism, reference works, library science, and other items commonly found in the DDC "generalities" class). Students show strong negative associations with foreign languages and literatures, engineering and technology, fiction and popular nonfiction, as well as marginally negative associations with several other subjects. "Other" requests are more likely to avoid economics, foreign language and literatures, and medicine. The only significant negative associations for those with unknown status are with the subjects of physical sciences and law; neither correlation is especially strong.

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[5] The correlation coefficient used here is Q, defined in G.U. Yule and M.G. Kendall, An Introduction to the Theory of Statistics (London: Charles Griffin and Co., 1958), p. 30. A statistical interpretation is given by Leo A. Goodman and William H. Kruskal, "Measures of Association for Cross Classifications," Journal of the American Statistical Association, XLIX (1954), pp. 732-64. Q is appropriate for dichotomous data which does not meet the demands of normality and ratio scaling applied be more conventional measures. Among its properties are these: Q is a direct measure of the extent to which knowledge of one variable improves the ability to predict a second variable, compared to a simple random guess. If the first item is irrelevant, you can still do no better than guess, and Q will be zero. If all cases where the first variable is positive are also cases where the second is positive, prediction is improved maximally and Q will be +1.00. If the absence of this condition also perfectly predicts the positive state in the second item, Q will be -1.00. (We are indebted to Joe L. Spaeth of the National Opinion Research Center, University of Chicago, for this interpretation.)

Exhibit 4.2

NYSILL REQUESTS BY SUBJECT CLASSES[a]

PHYSICAL SCIENCES

Anderson, J.
"Note on the Use of Strain Gauges in Wind Tunnel Balances"
AGARD Memorandum No. 6, Report, 1953

Blackwell, W.A.
Mathematical Modeling of Physical Networks
MacMillan, 1968

Todhunter, Isaac
History of the Calculus of Variations
Chelsea, 1962

Yasuo, Matusumura et al.
"Molecular Orientation Acrylic Fibres 4 Effect of Degree"
Kobunshi Kagaku Chemistry of High Polymers, 1966, Vol. 23, No. 253, pp. 29

Church, Earl and A.O. Quinn
Elements of Photogrammetry, Rev. Ed.
Syracuse, 1948

Castellan, G.W.
Physical Chemistry
Bridge, Addison-Wesley, 1964

Novitski, V.G.
"Increasing the Steady State Limit by Regulating the DC Transmission"
Electrichestvo (Russian), 1961 June issue, pp. 58-61

Yukava, Y. and M. Sakai
"Styrene with Lead Tetraearboxylates"
Nippon Kagaru Zasshi, 1966, Vol. 87, pp. 84-86

Savarini, Yolanda
Scientific Numerology

BIOLOGICAL SCIENCES

Heizer, R.F. and J.A. Graham
"Guide to Field Methods in Archaeology"
National PR Publications, Palo Alto, 1967

Pyatakov, M.L.
"On the Seasonal Fecundity Changes in Cladocera"
Zoologicheskii Zhurnal, 1956, Vol. 35, pp. 1818-1819

Kingsbury, John
Poisonous Plants of the U.S. and Canada
Prentice Hall, 1964

Sears, G.W.N.
Forest Runes
N.Y., Forest & Stream Publishing Co., 1887

Hobbin, H.I.
Guadalcanal Society: the Kaoka Speakers
Holt, 1964

Hart, C.W.
Tiwi of North Australia
Holt, 1960

"Forestry for the New York Preserve"
American Forests, 1900, Vol. 6, pp. 164-165

Garner, H.W.
"An Ecological Study of Brush Mouse Peromyscus Boylii in Western T"
Texas Journal of Science, 1967, Vol. 13, No. 3, pp. 285-291

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[a] Citations have been corrected wherever possible.

Exhibit 4.2
(continued)

ECONOMICS

Pratt, S.S.
"New York's Great Financial Institutions and Their Precedents"
Independant, N.Y., 1904, Vol. 57, Dec. 22

Mikesell, R.F.
"Liberalization of Inter-Latin American Trade"
Pan American Union, 1957

Hackney, J.W.
Control and Management of Capital Projects
Wiley, 1965

Aaronovitch, Sam
Monopoly in Britain, A Study of Monopoly Capitalism
Intern. Pub., 1955

Bachelier, L.J.
Theorie de la Speculation
Gauthiers Villars, Paris, 1900

Hirschletfer, J.
"Investment Decision Under Uncertainty"
American Eco. Assoc. Papers and Proceedings, 1963, Sect. Vol. 53

Foville, Alfred de
La Transportation des Moyens de Tansp. et ses Consequences Economi...
Guillaumin, Paris, 1880

Chand, M.
"Agriculture in the Underdeveloped Economy, A Philosophical View"
Indian Journal of Economics, 1963 April, Vol. 43, pp. 291-297

Isard, W. Cumberland J. EDS
Regional Economic Planning
Organ. for Euro. Econo. Cooperation (OEEC), Paris, 1961

ECONOMICS (continued)

*Miller, R.B.
Investment and Plant Location in Europe 1965
Noyes Development Corp., Pearl River, N.Y., 1965
(Also could be "Business")

GEOGRAPHY

Sleicher, C.A.
The Adirondacks, American Playground
Exposition PR, 1960

Hatton, Frank
North Borneo Explorations and Adventures on the Equator
Scribner, New York, 1886

Williams, Harry
Ceylon, Pearl of the East, 2nd Rev. Ed.
International Publications Service, N.Y.

Carter, Ernest
"Reclaiming the Adirondacks"
Outlook, 1897, September, No. 57, pp. 230-231

POLITICAL SCIENCE

Bijdragentot de Taal Land en Volkenkundo, 1960, Vol. 116, pp. 17, 54, 81, 10

Hoover, J.E.
Persons in Hiding
Little, Boston, 1938

Ranis, P.
"Peronismo without Peron Ten Years After the Fall, 1955-1965"
Journal of Inter Americ. Studies, 1966, Jan., Vol. 8, pp. 112-128

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Exhibit 4.2
(continued)

POLITICAL SCIENCE (continued)

Rozanov, V.V.
"Svoboda I Vera"
Russkii Viestnik Zhurnal Literaturny I Politicheskii, Moscow, 1894

Ruben, Ronald
"The Legislative Executive Relations of the USIA"
Parliamentary Affairs, 1967, Spring, Vol. 20, pp. 158-169

Ballard, John
"Bibliography of the Ivory Coast"
Journal of Modern African Studies, 1965, Vol. 3, No. 3, pp. 589-605

Schwartz, Harry
Many Faces of Communism
Berkeley, 1962

Curtiss, J.S.
Russian Church and the Soviet State, 1917-1950
Smith Peter, 1953

Gyorgy, Andrew
"Geopolitics, the New German Science".
University of California, PP in International Relations, 1944, Vol. 3, No. 3

Lefebvre, Georges
Politique Interieure du Second Empire
Les Cours de Sorbonne, 1953

Campbell, A.G.
"Has Utah a Republican Form of Government"
Century, a Popular Quarterly, 1882
to 1886, Vol. 1, pp. 712FF

Lavau, G.E.
Partis Politiques et Realites Sociales
A. Colin, Paris, 1953

SOCIOLOGY

Benne and Sheats
"Functional Roles of Group Members"
Journal of Social Issues, 1948, Spring, Vol. 4

Bennis, Warren
Planning of Change
Holt, 1961

Wikler, Revy and Grey, Peg S.
Sex and Senior Citizen
F. Fell, 1968

Lundberg, Ferdinand
The Rich and the Super Rich
L. Stuart, 1968

Foley, E.P.
Achieving Ghetto
National PR, 1967

Skinner, B.F.
Science and Human Behavior
MacMillan, 1953

Donald, T.
Leadership and Its Effects upon the Group
Ohio State, 1956

Fauset, A.H.
Black Gods of the Metropolis
Univ. of Pennsylvania, 1944

Levi-Strauss, Claude
Les Structures Elementaires de la Parenti
Paris Presses Univ., 1949

PSYCHOLOGY

Bergler, Edmund 1899-1962
Psychology of Gambling
Hill & Wang, Dr. Bernard Hanison, London, 1958

(continued)

Exhibit 4.2
(continued)

PSYCHOLOGY (continued)

Eysench
"Personality and the Estimation of Time"
Perceptional and Motor Skills, 1959, Vol. 9, pp. 405-406

Maslow, A.H.
Motivation and Personality
Harper, 1954, Edit. Garner Murphy

Jacoby, H.J.
Analysis of Handwriting
Norton, 1940

Neisser, Ulric
Cognitive Psychology
Appleton Century

Fosgate, Blanchard
Sleep Psychologically Considered with Reference to Sensation
Putnam, G.P., New York, 1850

Chu Kwang Tsien
The Psychology of Tragedy
Libraire Universitaire Alsace, Strasbourg, 1933

LITERATURE

Woods, C.B.
"Fielding and the Authorship of Pamela"
Philological Quarterly, 1946, Vol. 25, pp. 248-272

Gardner, E.G.
Dante
J.M. Dent & Co., 1900

Grant, Michael
Roman Literature
Penguin, 1958

Jarrell, M.L.
"Swiftiana in Finnegan's Wake"
English Literary History, 1959, Vol. 26, No. 2

LITERATURE (continued)

Brinton, Daniel
Lenape English Dictionary
Historical Society of Pa., 1888

Adams, R.M.
Rude Rural Rhymes
MacMillan, 1925

Daiches, D.
"Imagery and Meaning in Antony and Cleopatra"
English Studies, 1962, October, Vol. 43, pp. 343-358

Plath, Sylvia
"Uncollected Poems"
London Turret, 1965, Booklet No. 2

Hieatt, A.K.
College Anthology of British and American Verse

FOREIGN LANGUAGES

Scheler, Lucien
"Bibliographie for Hwang"
Europe, 1957, December, pp. 35-42

*Saki, H.H. Munro
76 Stories
Collins
(Not a "Foreign Language," but "Literature")

Alain, F.H.
LeGrand Meaulnes in French
Oxford University PR, 1931

Gukovski, G.A.
Realizm Gogolia
Moscow, 1959

Franq, H.G.
"Le Malheure d'Oedipe Etude Comparee de Corn Voltaire Soph Gidecoc"
Revue de L'University Laval, Vol. 20, pp. 560-569, 657-675

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Exhibit 4.2
(continued)

PHILOSOPHY AND RELIGION

Persson, P.
"Reformation in Recent Catholic Theology"
Dialog, a Continuing Conversation or Pittsburgh Dialog, 1963, Vol. 2

Pelster, F.
"Richard Von Rnapwell Op Seine Questiones Disputae und Sein Quodli"
Zeitschrift Fuer Ratholische Theologie, Innsbruck, 1928, Vol. 52, pp. 47

Grundnann, Walter
"Verstandniss und Bewegung des Glaubens Im Johannes Evangelium"
Kerygma und Dogma, 1960, Vol. 6, pp. 131-154

Montesde, OCO V.
More About Fatima
Newman, 1954

Hegel, Georg W.F.
Hegel's Political Writings Translated by T.N. Knox
Oxford, New York, 1964

Castell, Alburey
Introduction to Modern Philosophy - 2nd Ed.
MacMillan, 1963

Elliott, B.L.
Early Evangelicals
Seabury, 1953

Spencer, Theodore
Studies in Metaphysical Poetry
Kennikat, 1939

Dunlap, Knight
A Theory of the Syllogism, Vol. I
University of California, 1904

Oxley, William
Modern Messiahs and Wonder Workers, Hist. of Var. Mess. Claima. to SPD
Trubner, London, 1889

PHILOSOPHY AND RELIGION (continued)

Nevins, J.L.
Demon Possession and Allied Themes
New York, 1895

FINE ARTS

Clurman, H.
"Theatre Production in London"
Nation, 1957, July 6, Vol. 185, p. 18

Gottschalk, Max
Deutsche Hauskunde
Berlin, 1954

Tydings, K.S.
Nikon Camera
Chilton Co., 1961

Cooper, Joseph D.
Mamiya C Camera Guide
Universal Photo, 1963

Lipman, Jean
American Folk Painting
Potter, 1966

*Star, Morris
"A Checklist of Portraits of Herman Melville"
Public Lib. Bullet., 1967, Vol. 71, pp. 468-473
(Could also be "Literature")

Gerdis, W.H.
"Painting and Sculpture in New Jersey"
Van Nostrand, Princeton, N.J., The N.J. Hist. Series, 1964, Vol. 24

Brown, Thomas A.
History of the American Stage
Dick & Fitzgerald, 1870

AMERICAN HISTORY

*McGraw, Eloise
Moccasin Trail
Coward, 1952
(Could possibly be "Fiction")

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Exhibit 4.2
(continued)

AMERICAN HISTORY (continued)

Shoulder, James
History of the USA under the Constitution, Vol. I
Dodd, 1894

Gates, C.M.
Five Fur Traders of the Northwest
Minnesota, 1965

Phillips, U.B.
American Negro Slavery
La. State U.P., 1966

Franklin, Benjamin
Ingenious Dr. Franklin: Selected Scientific Letters
University of Pa., 1931

Wharton, V.L.
Negro in Mississippi 1865-1890
Torchbooks

Ellis, A.N.
"Recollections of an Interview with Cochise, Chief of the Apaches"
Kansas Hist. Soc. Collections, 1915, Vol. 13, pp. 387-392

OTHER HISTORY

Schorr, H.J.
"Deutsche Zentrumspartei"
Stegernald Archiv. Inhaltsubersicht, Cologne, 1966, p. 625

Fairservice, W.A.
Mesopotamia, The Civilization that Rose out of the Sea

Robertson, Sir William
From Private to Field Marshall
Constable & Co., London, 1921

Vratzian, Simon
Armenia and the Armenian Question
Hairenik Assn. Inc., Boston, 1943

Jarman, T.L.
Rise and Fall of Nazi Germany
Sig Nal, 1956

OTHER HISTORY (continued)

Lewes, G.H.
Aristotle, A Chapter from the History of Science
Smith Elder & Co., London, 1864

Zimmern, Heinrich
The Babylonian and the Hebrew Genesis
D. Nutt, London, 1901

BUSINESS

Kibbie, Craft and Nanus
Management Games
Reinhold, 1961

Stokes, John
How to Manage a Restaurant of Institute Food Service
W.C. Brown, 1967

Learned, Edmund
Business Policy
Irwin, 1965

Rneese, A.V.
"Why Water Pollution is Economically Unavoidable"
Trans Action, 1968, Vol. 5, pp. 31-36

Poulin, Clarence
Garment Altering and Repairing and Tailor Shop Management
Poulin, 1958

Farber, D.C.
From Option to Opening, a Guide for the Off-Broadway Producer
Drmk. Book Shop, 1968

Bierman, J.D.
"Going into Business for Yourself"
Parents Magazine, 1967, Nov., Vol. 42

Bowman, LeRoy
The American Funeral, A Study in Credit Extravagance and Sublimity
Publ. Affairs PR, Washington, D.C., 1959

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Exhibit 4.2
(continued)

ENGINEERING

Thayer, H.R.
Earthwork and Retaining Walls
Internatl. Corresp. Schools,
Scranton, Pa., 1928

Graham, F.D.
Audel's Engineers and Mechanics Handbook
Audel, 1928 (This Ed. Only)

Mohler, James
Electroplating
Tudor, 1951

Schmidt, F.A.
Internal Combustion Engine
Barnes and Noble, 1965

*"Storm King Question Hydropower in Hudson Highlands"
National Parks Magazine, 1965, Vol. 39, pp. 21FF
(Where would one assign "Conservation"?)

"Static Adjustable Frequency Drives"
AIEE Transaction Application and Industry, 1963, May, Vol. 82, pp. 75, 7

EDUCATION

Bateman, Barbara
"Learning Disabilities, an Overview"
Journal FD School Psychology, 1965, Vol. 3, No. 3, pp. 1-12

Brecher, Ruth and Edward
"Creative Ability"
Parents Magazine, 1960, Vol. 35, p. 57 plus

McNiel, E.B.
"The Paradox of Education for the Gifted"
Improv. Coll. and Univ. Teaching, 1960, Vol. 8, No. 3, pp. 111-115

EDUCATION (continued)

Cohen
"Dependency and Class Size"
Childhood Ed., 1966, Sept.,pp. 16-19

Campbell, Angus
Public Use of the Library
University of Michigan, 1950

Havighurst, Robert
Society and Education
Allyn, 1967

Redl, Fritz and W.W. Wattenberg
Mental Hygiene in Teaching - 2nd Edit.
Harcourt, 1959

DeFrancesco, Italo
Art Education, Its Means and Ends
Harper, 1958

Borrowman, Merle L.
Teacher Education in America
Teachers College, 1965

Schloerb, L.J.
School Subjects and Jobs
Science Research Assoc., Chicago, 1950

Krockover, G.H. and D.A. Schaefer
"Improving Elementary Science Instruction"
School Science and Mathematics, 1968, Vol. 68, pp. 117-122

Eye, Glen
Supervision of Instruction
Harper, 1965

Berenda, R.W.
Influence of the Group on the Judgment of Children
Kings Crown Press, 1950

MEDICINE

Kondas, D.
"Treatment of Stammering Children by the Shadowing Method"
Behavior Research and Therapy, 1967, Vol. 5, pp. 325-329

(continued)

Exhibit 4.2
(continued)

MEDICINE (continued)

Nakasava, R.
"Der Einfluss Der Chronischen Nicotinvergiftung"
Japanese Journal of Medical Sciences, Transactions, 1933, Sect. 4 Pharmac.

Paton, R.T. et Al.
Atlas of Eye Surgery - 2nd Ed.
McGraw, 1962

Luchins, A.S.
Group Therapy
Random House, 1964

Ruiter, M.
"Demonstration by Electro Microscopy of AN"
Journal of Investigative Dermatology, 1966, Sept., Vol. 47, pp. 247-252

Bradley, Robert
Husband Coached Childbirth
Harper, 1965

Kupermann, Volpert and Okamoto
"Release of Adenine Nucleotide from Nerve Axons"
Nature, 1964, Vol. 204, pp. 1000 plus

Wolpe, Joseph, et Al.
Conditioning Therapies
Harcourt, N.Y., 1964

Louria, Donald
Nightmare Drugs
Pocket Bks., 1966

Bellak, Leopold
Schizophrenia
Grune, 1966

O'Gormon, Gerald
Nature of Child Autism
Appleton, 1967

MEDICINE (continued)

Simonton, K.M.
"The Blue Eardrum, Report of a Case in which Treatment was Radicmas"
Laryngoscope, 1955, Vol. 65, pp. 342-344

Behnre, A.R.
"Problems in the Treatment of Decompression Sickness"
New York Academy of Sciences Annals, 1965, Vol. 117, pp. 843-864

*"Helping the Homosexual"
Church Today, 1968, Feb., Vol. 12, pp. 29-30
(Could also be "Psychology" or "Sociology")

LAW

Morland, Nigel
Outline of Sexual Criminology
Hart

Fuller, L.L.
Morality of Law
Yale, 1964

Baldwin, R.
"Japanese Americans and the Law"
Asia, 1942, Sept., Vol. 42, pp. 518-519

"The Supreme Court and Unconstitutional Laws"
California Law Rev., 1937, July, Vol. 25, pp. 552-563

FICTION

*Newman, Franklin
"My Kinsman Major Malineau an Interpret."
Univers. Rev., 1955, Mar., Vol. 21, pp. 203-212
(Should be "History")

(continued)

Exhibit 4.2
(continued)

FICTION (continued)

Venturi, Ken
Comeback
Meredith, 1965

Robbins, Harold
Where Love Has Gone
Trident, 1962

Fitzroy, Olivia
Wandering Star
Collins, 1953

Thompson, J.H.
Bitter Bottles
Century House, 1947

*Blaustein, Ancel
Spleen
McGraw-Hill, 1963
(Probably "Medicine")

The McNeil of Barr Robert
Castle in the Sea
Collins, 1964

*Lawes, L.E.
20,000 Years in Sing Sing
R. Long & R.R. Smith Inc., 1932
(Should be "Biography")

Young, L.R.
Out of Wedlock
McGraw, 1954

Parmenter, Christine
Long Quest

BIOGRAPHY

Gourgaud, Gaspard
St. Helena Jnl. of General Baron Gourgaud
John Lane, London, 1932

Halifax, Charles
Lord Halifax Ghost Book
Didier, 1944

Kirk, Russell
John Randolph of Roanoke
Chicago, Regnery, 1964

Butler, B.F.
Autobiography and Personal Reminisc. of Major General Benjamin F. Butler
A.M. Thayer & Co., Boston, 1894

Booth, Charles
Charles Booth, A Memoir
MacMillan, London, 1918

Richardson, Samuel
History of Sir Charles Grandison
Harrison & Co., London, 1783

Selborne, R.P.
Memorials of Selbourne - 4 vols. 1896 to 1898
MacMillan

At this point the reader, recalling that these subjects have been assigned by looking at titles, may well inquire into the reliability of all of these findings. Obviously if the requests labeled above as "physical science" are not, in fact, in this category, then much of the foregoing is misleading. As a check on the assignment of subject classes, Exhibit 4.2 was prepared. This is a sample of the materials requested through NYSILL, grouped by the subject classes assigned by the consultants. The exhibit shows that the assignment of Nelson subjects, from bibliographic citations only, has a reasonable degree of common sense plausibility. This is sufficient for present purposes. It is only necessary that the cases included in any given subject class be reasonably representative of the characteristics of NYSILL requests in that subject. Some subjects will be more reliably assigned than others, of course, and the material below suggests which ones these might be. Several of the cases in Exhibit 4.2 have been asterisked (*) to indicate that subject assignments are never free of error.

As a check for ambiguity, an analysis has been made which rests on the assumption that some subjects are easier to identify from titles than are others. By comparing the Dewey codes with the Nelson codes, a measure has been taken of the consistency between decisions made by Nelson Associates and those made by the persons assigning the DDC number. It is suggested that the greater the agreement between the two subject schemes, the more likely it is that a given subject class actually includes appropriate requests. Such subject classes are likely to be less ambiguous than others, and thus more likely to be successfully handled by NYSILL's routing procedures.

The comparison is based on correlations[6] and is given by Table 4.11. At least two subjects show a very high level of agreement (+.81):

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[6] The following commentary has been included primarily to note the reasons for a change in coefficients, but it also serves another useful purpose: to illustrate the degree to which conclusions--and recommendations for action--can be affected by the choice of methods. A preliminary analysis was made using Q, the same coefficient utilized in the previous table. This statistic was not discriminating enough and for these purposes led to results which would have been extremely misleading. Consider the following example: in the case of biography, there were a total of two cases where both subject schemes agreed that the subject code should indeed be biography; 49 cases where the codes explicitly disagreed (e.g., one approach called the request biography but the other called it something else); and 1,457 cases where the two approaches agreed that the subject was not biography at all. (The remaining 890 cases were NA on one or both items.) It happens that Q tends to be fairly gross in its discriminating ability, however, and the outcome for biography was +.68--a result which the consultants felt would be widely misunderstood. Instead, the coefficient phi (Ø) was employed. This is a product-moment correlation (the formula for phi is, in fact, the alegebraic reduction of the Pearson product-moment correlation, for cases where the data fits a double dichotomy). Relative to Q, phi tends to be more discriminating. Compare the correlation shown in Table 4.11 for biography: +.07, which properly reflects the very small amount of actual agreement which does exist for this category.

Table 4.11

AMBIGUITY IN SUBJECT CLASSIFICATIONS: AGREEMENT BETWEEN DEWEY DECIMAL AND NELSON SUBJECT CLASSES FOR 1,508 REQUESTS (φ)[a]

Subject	Correlation, DDC vs. Nelson Codes (φ)
Natural Sciences:	
Physical Sciences and Mathematics	+.64
Biological Sciences (including Anthropology)	+.50
Social Sciences:	
Economics	+.51
Geography	+.13
Political Science	+.27
Sociology, Social Welfare	+.38
Psychology	+.39
Humanities:	
Classics, plus English Language and Literature	+.45
Foreign Languages and Literatures	+.47
Philosophy and Religion	+.65
Fine Arts	+.60
American History	+.40
Other History	+.42
Professional Subjects:	
Business, Public Administration	+.36
Engineering, Technology	+.53
Education	+.81
Medicine	+.81
Law	+.23
Others:	
Fiction	–[b]
Biography	+.07
Popular Nonfiction	+.22
Miscellaneous; Generalities	+.22

a. Phi (φ) = product-moment correlation for dichotomous data.
b. No Dewey codes recorded.

education and medicine. It probably is not coincidental that these happen to be the two subjects which are most commonly requested. The simple experience of dealing with many requests assists in devising reliable coding procedures. In addition, it also seems reasonable to suspect that these are topics which are intrinsically less ambiguous.

Physical science, philosophy and religion, and fine arts each show a reasonable degree of agreement among the two codes, with associations ranging from +.60-65. Following these are a group of topics with associations ranging between +.53 and +.36: biological sciences, economics, sociology, psychology, classics, foreign languages, American history, other history, and business fields. In each of these cases the associations are strong enough to indicate a fair degree of consistency, but nowhere near the level of agreement shown by education and medicine.

The fields of political science, law, popular non-fiction, and miscellaneous generalities all show weak associations between the two subject codes (+.27-.22). Here ambiguity is marked. It is possible that in the case of law, simply too few cases exist for reliable conclusions to be drawn. For the other categories, however, case bases are quite substantial and there seems no doubt that real problems of meaning exist in trying to determine whether a request is "political science" or not, to give an example. Finally, for geography and biography there is simply no association between the two codes. This indicates imprecise definitions causing ambiguity in classification criteria.

The problems which have been reviewed here might be dealt with in two ways. First, additional subject detail is needed before some materials can be easily assigned. For example, it is possible that the "political science" class should be divided into "American government" and "international relations." Alternatively, it might be possible to achieve equally good results by the use of relatively broad categories such as "all social science." Such a strategy would depend on the identification of libraries strong in most, if not all, of the related subjects, so that making detailed distinctions would be unnecessary. While it is certain that such an approach cannot work for all requests handled by NYSILL, it is also quite possible that needless distinctions are being made for some portion of these loans.

Originating Libraries: What Kinds of Institutions are Linked to NYSILL?

What types of libraries did the NYSILL patrons use for submission of requests? Table 4.12 answers this question, showing the types of libraries used for each of the four categories of patron status. As would be expected, more than three quarters of the faculty requests came from academic libraries; two-thirds of the student requests came from college and university libraries; and the rest originated at public libraries, which were the major source for both eligible "others" and those with no known patron status. Overall, almost three-quarters of all NYSILL requests originated at public libraries.

Table 4.12

TYPES OF LIBRARIES USED, FOR EACH CATEGORY OF PATRON STATUS (10% SAMPLE OF REQUESTS)

Library Type	Patron Status				Total
	Faculty	Student	Other	Unknown	
Public	21%	34%	89%	87%	74%
Academic	76	66	4	12	24
Medical	3	-	2	-	1
Special	-	-	5	1	2
Total[a]	100%	100%	100%	100%	101%[b]

a. Excludes 54 cases NA on library type.
b. Does not add to exactly 100%, due to rounding.

Table 4.13

TYPES OF PATRONS SERVED FOR EACH CATEGORY OF LIBRARY TYPE (10% SAMPLE OF REQUESTS)

Patron Status	Originating Library Type				Total[a]
	Public	Academic	Medical	Special	
Faculty	2%	27%	38%	-	8%
Student	7	42	-	-	15
Other	26	4	62	70%	21
Unknown	65	27	-	30	55
Total	100%	100%	100%	100%	99%[b]

a. Excludes 54 cases NA on library type.
b. Does not add to exactly 100%, due to rounding.

Table 4.13 examines the same data from the point of view of the libraries, to compare their mix of patrons. About two-thirds of the public library requests were for patrons with no known status; a little more than a quarter were for eligible "others," while most of the remainder were for students. In academic libraries, student requests made up 42% of the total, and faculty members and unknown-status requests each contributed another 27%. The distribution for medical libraries is very simple, most items coming from eligible "others"--doctors, one would assume--with the remainder originated by faculty members. The special libraries are the only ones without academic users; here 70% of all requests come from eligible "others."

Additional data is available to pin down how large these libraries are, and where they are located in the state. This is presented in Table 4.14. Each cell of this tabulation represents all libraries of a particular type and size in some given region; the numbers refer to the total number of requests in the sample from those libraries. All but two of the empty cells for public and academic libraries reflect the fact that some combinations of type, size and region are impossible in New York (at least in terms of the coding used for this study, which reflects 1964 data. See Appendix A). In contrast, the empty cells for "other" types of libraries all reflect instances where no requests were picked up in the sample, despite the existence of libraries which could have sent in such requests. In particular, no requests from law libraries were identified (four items from the State Library's law division were coded as "public"), nor were any items submitted from special libraries in the entire Upstate Central region.

More than half of the total volume came from small public libraries; more than a quarter of this same total came from small public libraries located in the Metropolitan New York City region (which includes Long Island, Westchester, Rockland, and portions of Putnam counties. See Figure 2.1). This portion of the total is less than half what one would expect, given the distribution of population in New York State. Such is the effect of proximity to New York City. The heaviest academic use came from the Upstate Eastern region, where the New York State Library represents the strongest available resource. The figures for the entire Upstate Western region have undoubtedly been affected by the existence of the two regional interlibrary loan networks.

How many libraries are reflected in this data? The list in Appendix E shows that more than 400 different institutions--well over half of all public libraries in New York, and nearly a fifth of the totals for all libraries, public, academic, medical, law, and special--were picked up in the 10% sample alone. Any small library submitting relatively few loans over the study period has less than an even chance of being included in this study, so the sample count certainly does not include all libraries using NYSILL between October and December, 1968. (It probably does include nearly all those which submitted at least ten requests.) NYSILL, it may be said with assurance, reaches a large number of institutions and does not serve just a few libraries.

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Table 4.14

ORIGINATING LIBRARIES: NUMBER OF REQUESTS SUBMITTED TO THE STATE LIBRARY, BY TYPE, SIZE, AND GEOGRAPHIC REGION (10% SAMPLE)[a]

Type and Size	Region				Total
	New York City Metropolitan	Upstate Eastern	Upstate Central	Upstate Western	
Public Libraries:					
Less than 100,000 volumes	649	295	223	178	1,345
100,000-499,000 volumes	118	18	32	14	182
500,000-999,000 volumes	–[b]	–[b]	14	–[b]	14
1,000,000 volumes or more	6	143	–[b]	44	193
Total Public Libraries	773	456	269	236	1,734
Academic Libraries:					
Less than 100,000 volumes	22	39	92	11	164
100,000-499,000 volumes	32	273	18	25	348
500,000-999,000 volumes	–[c]	–[b]	–[c]	29	29
1,000,000 volumes or more	1	–[b]	–[b]	18	19
Total Academic Libraries	55	312	110	83	560
Other Libraries:					
Law	–[c]	–[c]	–[c]	–[c]	–[c]
Medical	2	5	–[c]	6	13
Special	16	11	–[c]	10	37
Total Other Libraries	18	16	–[c]	16	50
Total, All Libraries	846	784	379	335	2,344[d]

a. For derivation of all categories, see text and Appendix A. Note size coded in thousands of volumes.

b. Impossible cell: no such libraries in New York (according to 1964 sample frame, which is consistent with assignment of categories to these data).

c. No loans, although such libraries exist.

d. Excludes 54 cases NA on type, size, and region.

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The effects of each of these distinctions on general outcomes in NYSILL is shown in Table 4.15. Taking up type first, public library requests are the least likely to be eligible for referral, least likely to be referred, and least likely to be filled. In fact, the percentage of filled requests from public libraries has actually gone down since 1967. It is possible that the earlier rate was too high, in the sense that it was gained at the expense of inappropriate use of the referral network; other data gathered for these studies would suggest as much.

Turning to size, distinctions are less clear-cut. The requests from very large libraries are largely composed of items initiated by the State Library itself, and thus the fact that most of these are eligible and referred comes as no surprise. At the medium-large libraries, many fewer items were eligible or referred, yet filling rates were the highest of any size category. The outcomes for both of the medium-size library categories are heavily weighted by academic institutions, and this is reflected in the data for these groups; in similar fashion, the results for the smallest size category are influenced strongly by the presence of many public libraries.

The results for geographic regions reveal that the New York City area libraries, the biggest single group, submit the least number of eligible items, have the fewest referrals, and experience the lowest success rate of any single category in the table. In contrast, all three upstate regions show relatively high rates of eligibility, referring, and filling.

Finally, a check was made to see if NYSILL volume varied by month for these characteristics of libraries. The results are given in Table 4.16. In general, no trends of any significance appear in the data, when allowance is made for the drop in academic interlibrary loan previously discussed.

Other Descriptive Characteristics of NYSILL Loans

For loans on which citations were available, the mean date of publication was computed. The average for all items received by the State Library was 1953; those requests which were neither filled nor referred were for significantly newer material (average date of publication: 1956). The range of dates entering into these figures is very wide; a number of items were published before 1900. For this reason these averages probably do not reflect very many individual requests. What they represent, instead, is a measure of the extent to which NYSILL deals with requests for relatively recent items--for example, a 1967 journal article --as opposed to relatively old items--for instance, a book published in 1893.

Other salient descriptors of ILL have to do with the language of the item, the format in which it is issued, and whether or not the request has been verified for bibliographic accuracy. Table 4.17 gives the dis-

Table 4.15

PERCENT OF NYSILL REQUESTS ELIGIBLE, REFERRED, AND FILLED, FOR SELECTED CHARACTERISTICS OF ORIGINATING LIBRARIES[a]

Originating Library Characteristics	Number of Requests in 10% Sample	Percent...		
		Eligible	Referred	Filled
Type: Public	1,725	40%	28%	59%
Academic	560	70	39	75
Medical	13	92	31	85
Special	37	65	46	65
Size: Less than 100,000 volumes	1,540	41%	23%	60%
100,000-499,000 volumes	540	58	34	71
500,000-999,000 volumes	43	40	42	80
1,000,000 volumes or more	212	74	80	71
Region: New York City Metropolitan	846	33%	20%	56%
Upstate Eastern	784	55	39	67
Upstate Central	379	60	32	69
Upstate Western	326	55	38	70
All Libraries[b]	2,398	48%	31%	64%

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a. See Appendix A for derivation of categories. NA's or pending statuses excluded.

b. Includes requests from libraries with no data on characteristics.

Table 4.16

SELECTED CHARACTERISTICS OF ORIGINATING LIBRARIES FOR NYSILL REQUESTS, BY MONTH[a]

Characteristics	Month			Total
	October	November	December	
Type: Public	75%	71%	77%	74%
Academic	23	26	22	24
Medical	1	1	–[c]	1
Special	2	2	1	2
Total	101%[b]	100%	100%	101%[b]
Size: Less than 100,000 volumes	64%	66%	69%	66%
100,000-499,000 volumes	26	23	19	23
500,000-999,000 volumes	2	2	2	2
1,000,000 volumes or more	8	9	10	9
Total	100%	100%	100%	100%
Region: New York Metropolitan	38%	34%	35%	36%
Upstate Eastern	34	34	32	33
Upstate Central	16	16	17	16
Upstate Western	12	16	16	14
Total	100%	100%	100%	99%[b]

a. Excludes 54 requests NA on characteristics.
b. Does not total exactly 100%, due to rounding.
c. Less than one-half of one percent.

Table 4.17

PERCENT OF NYSILL REQUESTS ELIGIBLE, REFERRED, AND FILLED, FOR SELECTED CHARACTERISTICS OF THE REQUEST: LANGUAGE, MEDIA AND VERIFICATION

Characteristic	Number of Requests in 10% Sample	Percent...		
		Eligible	Referred	Filled
Language:				
English	1,937	53%	28%	64%
Other	144	74	73	64
Unknown	317	1	1	63
Media:				
Book	1,492	48%	28%	57%
Nonbook	573	75	40	82
Unknown	333	2	2	11
Verification:				
Yes	1,767	58%	33%	64%
No	312	36	22	62
Unknown	319	1	1	64
All Cases	2,398	48%	31%	64%

tribution of NYSILL requests for each of these factors, and shows variations in general outcomes for each. Most NYSILL items are for materials in English. Non-English items are much more likely, however, to be both eligible for referral and actually referred. They are no more likely to be filled, however. The proportion of requests for books is also high, in excess of 70% for those cases which could be classified. But like the language factor, it is the nonbook items which are likely to be referred and filled. Probably these differences are related to the use of NYSILL by academic, as opposed to public, library patrons.

Eighty-five percent of all NYSILL requests were apparently verified. The statement is qualified because at least two referral libraries reported that the verification statements do not always hold up. Perhaps this is why there is no significant difference in filling between items which verified and those which were not. Greater differences than those in the table were expected; a review of library practices and interviews for this study revealed a strong feeling on the part of librarians that good verifications are absolutely essential to successful handling of interlibrary loans. It is possible that the cases which were not verified took longer to process, of course.

Two characteristics of NYSILL loans were worth noting here but were so rare so as to preclude any tabular analysis. The first of these was the presence of 14 requests in the sample coded "urgent." These were concentrated in the biomedical fields. Even allowing for the problems in using subject categories, it seems reasonable to conclude that the "urgent request" option was being properly used. On the other hand, it was not used heavily; the great bulk of biomedical items carried no urgent status. On balance, it appears that the need to institute special procedures for such requests has been exaggerated; there are simply too few to warrant any special organization of the system. Perhaps a better approach is to try limited high-priority service for requests in any subject.

Finally, a count was kept of non-specific items (such as "a book on the care and feeding of dogs"). It was possible that such items might turn out to be fairly common--interviews conducted for the earlier NYSILL studies indicated that this might be the case. However, if such requests were common in NYSILL in the past, they are not now. Only seven turned up in the sample: .003 of the total.

SUMMARY: THE IMPROVEMENTS IN THE NYSILL SYSTEM

The data on NYSILL, Phase II, presented in this chapter confirms impressions gained from both interviews and the analysis of data from the last months of NYSILL, Phase I: that the system has changed in some significant ways. The service it gives to non-public interlibrary loans has improved, and much greater use is now made of referral libraries. It is equally significant that NYSILL has not changed in certain kinds of ways. Although academic libraries expressed considerable displeasure with the system in 1967, the portion of the load contributed by these libraries remains at about a quarter of the total--even after adding two regional networks which do a considerable business in academic interlibrary loan, and after changed procedures which allow direct use by large university libraries of the NYSILL referral centers. This impression of continued use is also borne out by the consistency of patron status and subject data with earlier studies. Exact comparisons were impossible for both of these factors, because of differences in method, but the general patterns of use by different kinds of patrons certainly did not change; and the subject categories reveal the same broad distribution of materials as was shown previously.

Before moving on to an assessment of the actual operations of the network, several points may be noted with respect to what remains to be known about the character of these loans. First, it is apparent that a great deal of work remains to be done in dealing with the problem of classifying loans for referral. A number of characteristics have been identified which are associated with a high likelihood of successful handling. Most of these are related to academic requests: faculty and student status, requests for nonbooks, requests in certain academically oriented subject areas such as medicine. It is possible that combinations of these factors could be identified which, in conjunction with data on referral libraries, would enable better subject definitions for the routing of referrals. Success in these endeavors is contingent on better solutions to the problem of classification, solutions which are already partially in hand. For example, the analysis here has shown that some subjects, at least, can be identified with reasonable reliability.

Second, a great deal remains to be known about patrons. The present status codes are quite inadequate for any very sophisticated analysis of loans; a detailed occupational code would be a distinct improvement. Such codes are tested and available, and with a little study one could be easily adapted to provide better identification of patrons. This, in turn, would enable the system to be more custom-tailored to the needs of specific groups of people.

Related to this is the need to study these patrons in much greater detail. An analysis of the detailed uses which are made of items obtained through NYSILL would be the only way to really establish the ultimate value of such a system. The assumption of the 3R's program has always been that NYSILL will service high-level materials as well as those public library loans which the State Library was always ready to provide. This assumption is borne out by the citations reviewed in this chapter; but it would be useful to go further and learn why these materials are being used. How many books, scholarly articles, term papers, commercial innovations, or new technological developments were supported in a small way by this system during 1968? At the present time, this cannot be determined.

Chapter V

THE OPERATION OF THE NYSILL NETWORK

The previous chapter was mainly concerned with describing the general performance of the NYSILL system and providing some detailed information about the kinds of materials requested. This chapter, in contrast, concentrates on the performance of the searching and referral mechanisms which comprise the network. In broad outline, NYSILL consists of three parts: a set of request transmission sites which receives requests from local libraries and, when the sites cannot supply materials themselves, pass the requests on to the State Library; the New York State Library, which serves both as the major resource and as the switching center; and 12 referral libraries which back up the collections at Albany. All of these units are linked by a teletype communications system. For NYSILL to be satisfactory, each of the three major parts must perform well. A breakdown at any level of the system will have serious repercussions on the whole.

The Request Transmission Sites

The NYSILL transmission sites include all 22 public library system headquarters in the state plus a number of colleges, universities, and special libraries with access to TWX equipment. Not all library systems actually submit requests. The New York City counties are formally organized into three systems: The New York Public Library, The Brooklyn Public Library, and The Queens Borough Public Library. Each of these units is so strong that its need for NYSILL is minimal and few if any requests are submitted. A fourth system, the Upper Hudson Library Federation, is headquartered in Albany and works directly with the State Library. It uses NYSILL, but requests from this system only show up in the statistics as part of the volume generated by departments of the State Library.

Table 5.1 shows the volume of NYSILL interlibrary loans generated by each of these transmission sites. Those with the heaviest loads are, respectively, the Suffolk Cooperative Library System, the Nassau Library System, the Ramapo-Catskill Library System, and the Mid-Hudson Libraries--all located, if not entirely within the New York City metropolitan region, at least close by.

Some interesting changes have taken place among the other transmission sites. In particular, the Buffalo and Erie County Library, Chautauqua-Cattaraugus Library System, and the Pioneer Library System, all served during these months by new regional interlibrary loan networks, increased their volume of NYSILL transmissions. Since it is

Table 5.1

NYSILL VOLUME BY REQUEST TRANSMISSION SITES, 1968 AND 1967
(10% SAMPLE)

Request Transmission Site	Number of Cases in Sample	x 10 = Estimated Total, October-December 1968	÷ 3 = Monthly Average	1967[a] Monthly Average	Percent Increase/ Decrease
Library System Centers:					
Brooklyn Public Library	6	60	20	4	+400%
Buffalo and Erie County Library System	49	490	163	17	+859
Chautauqua-Cattaraugus Library System	57	570	190	172	+ 10
Chemung-Southern Tier Library System	53	530	177	140	+ 26
Clinton-Essex-Franklin Library System	29	290	97	83	+ 17
Finger Lakes Library System	56	560	187	160	+ 17
Four County Library System	80	800	267	244	+ 9
Mid-Hudson Libraries	209	2,090	697	519	+ 34
Mid-York Library System	98	980	327	218	+ 50
Mohawk Valley Library Association	60	600	200	165	+ 21
Nassau Library System	268	2,680	893	772	+ 16
New York Public Library	0	0	0	2	-100
Nioga Library System	33	330	110	166	- 34
North Country Library System	34	340	113	86	+ 31
Onondaga Library System	43	430	143	112	+ 28
Queens Borough Public Library	0	0	0	1	-100
Pioneer Library System	91	910	303	205	+ 48
Ramapo-Catskill Library System	183	1,830	610	734	- 17
Southern Adirondack Library System	64	640	213	309	- 45

(continued)

Table 5.1
(continued)

Request Transmission Site	Number of Cases in Sample	x 10 = Estimated Total, October-December 1968	÷ 3 = Monthly Average	1967[a] Monthly Average	Percent Increase/ Decrease
Library System Centers: (continued)					
Suffolk Cooperative Library System	341	3,410	1,137	1,045	+ 9%
Upper Hudson Library Federation	_[b]	_[b]	_[b]	_[b]	_[b]
Westchester Library System	72	720	240	121	+ 98
Total, All Library Systems	1,826	18,260	6,087	5,275	+ 15
Colleges and Universities:					
Cornell University	6	60	20	23	- 13
SUNY: Albany	124	1,240	413	197	+110
SUNY: Binghamton	1	10	3	18	- 83
SUNY: Buffalo	28	280	93	60	+ 55
SUNY: College at Potsdam	75	750	250	89	+281
Union College	133	1,330	443	312	+ 42
Others: Hamilton, Clarkson, NYU, University of Rochester	52	520	173	31	+458
Total, All Colleges and Universities	419	4,190	1,395	730	+ 91
Divisions of the New York State Library	143	1,430	477	140	+241
Other: Brookhaven National Laboratory	10	100	33	29	+ 14
Total, All Requests	2,398	23,980	7,992	6,174	+ 29

a. From *An Evaluation of NYSILL* (New York: Nelson Associates, 1967), pp. 33-34.

b. Included in totals for the New York State Library.

certain that the new regional networks are filling some requests which in the past would have gone into the NYSILL system, it may be that the regional systems serve a pump-priming function, bringing requests to NYSILL which previously would have been sent to non-public resources or not requested at all. The fourth system involved in these new networks, the Nioga Library System, is one of the few transmission sites in the table to show a decrease in volume since 1967. It should be noted that all of the very large proportionate changes are somewhat misleading, since they are based on very minimal use of NYSILL in the first place; for such cases, any change will have an exaggerated effect on percentages.

Turning to the academic transmission sites, volume for these is up by more than 90% of 1967 levels. This is a considerably greater rate of growth than NYSILL experienced in general. Most of this increase is concentrated in those colleges and universities in the eastern upstate region, where the State Library has traditionally been a major resource. The academic use of NYSILL is not by any means restricted to a few schools, however. One college may serve as a transmission site for several other colleges (as at SUNY-Potsdam).

The academic transmission sites are not the only source of requests from academic libraries, as Table 5.2 shows. The Buffalo and Erie County Public Library, Mid-Hudson Libraries, and Pioneer Library System all submit substantial numbers of requests from colleges and universities. In addition, the Pioneer Library System sends in a large number of requests from special libraries. Again, the effect of the regional systems can be seen; this system has more than tripled the number of special library requests sent to the State Library since 1967.[1]

For additional information on the libraries served by the various request transmission sites, the reader is referred to Appendix E, which lists the names of all institutions that submitted at least two of the requests analyzed for this study. As was mentioned in Chapter IV, these data underscore the wide range of libraries which make use of this program. They also show clearly that the request transmission sites are largely intermediaries in this system, and not originators of requests. It is possible, of course, for these sites to initiate a loan, but for most cases the transmission sites are handling materials passed on to them by other libraries.

How do requests from different parts of the state vary in the NYSILL resources they use? Some differences should exist, since the choice of referral to the general-purpose area centers is made in part

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[1] An outcome not directly shown in the table; calculated from proportions in Table 3.4 of An Evaluation of NYSILL, op. cit., and data given here in Tables 5.1 and 5.2.

Table 5.2

TYPES OF ORIGINATING LIBRARIES SERVED, BY REQUEST TRANSMISSION SITES

Request Transmission Site	Percent of Requests Coming From...[a]			
	Public Libraries	Academic Libraries	Other Libraries	Total
Library System Centers:				
Brooklyn Public Library	100%	-	-	100%
Buffalo and Erie County Library System	64	32	4	100
Chautauqua-Cattaraugus Library System	100	-	-	100
Chemung-Southern Tier Library System	100	-	-	100
Clinton-Essex-Franklin Library System	97	-	3	100
Finger Lakes Library System	100	-	-	100
Four County Library System	100	-	-	100
Mid-Hudson Libraries	70	24	6	100
Mid-York Library System	95	5	-	100
Mohawk Valley Library Association	100	-	-	100
Nassau Library System	96	3	1	100
Nioga Library System	100	-	-	100
North Country Library System	100	-	-	100
Onondaga Library System	100	-	-	100
Pioneer Library System	42	40	18	100
Ramapo-Catskill Library System	86	10	4	100
Southern Adirondack Library System	98	2	-	100
Suffolk Cooperative Library System	91	9	-	100
Westchester Library System	96	4	-	100
Colleges and Universities:				
Cornell University	-	100%	-	100%
SUNY: Albany	-	100	-	100
SUNY: Binghamton	-	100	-	100
SUNY: Buffalo	-	100	-	100
SUNY: College at Potsdam	-	96	4	100
Union College	-	100	-	100
Other Colleges	-	100	-	100
Divisions of the State Library	-[b]	-[b]	-[b]	-[b]
Others	-	-	100%	100%

a. Excludes requests without data on library type.
b. Not coded.
Note: Additional detail will be found in Appendix F.

Table 5.3

ASSOCIATION (YULE'S Q) BETWEEN REGIONAL ORIGIN OF REQUEST AND OBTAINING MATERIALS FROM SPECIFIC RESOURCE LIBRARIES (10% SAMPLE)

Library Filling Request	Region			
	New York City Metropolitan	Upstate Eastern	Upstate Central	Upstate Western
New York State Library[a]	+ .32	- .16	+ .08	- .31
All Referral Libraries[b]				
...Brooklyn	+ .60	- .60	- .11	- .24
...Buffalo and Erie	- .11	+ .07	+ .24	- .46
...Rochester	+ .24	- .22	- .41	+ .11
...Columbia	- .32	+ .14	+ .14	- .05
...Cornell	- .52	+ .03	+ .13	+ .21
...Engineering Society	+ .35	- .20	- .20	.00
...New York Academy of Medicine	- .32	+ .05	- .50	+ .25
...New York Public	- .59	+ .18	- .51	+ .18
...New York University	.00	.00	+ .52	-1.00
...Teachers College	+ .73	-1.00	-1.00	-1.00
...Union Theological	- .34	- .34	+ .57	- .34
...Museum of Natural History	-1.00	+ .51	-1.00	-1.00

a. Based on all cases except NA's on region or status at State Library.
b. Based on all referrals, except NA's on region or referral library where filled.

on geographical grounds. The Brooklyn Public Library is designated to serve much of the New York City region (specifically, the Nassau, Suffolk and Westchester Library Systems). The Rochester Public Library takes requests from all four regions, but the heaviest loads at this area center would be expected from the far western portions of the state and the remainder of the New York City metropolitan area. The rest of the state is allocated to the Buffalo and Erie County Library; one would expect the use of this area referral center to follow population distribution patterns, as in the other cases, and thus receive relatively heavy use by libraries in the upstate eastern region. These possible relationships are tested by the data in Table 5.3, which give correlations between region and the actual use of materials from each of the 13 NYSILL resources (the State Library included).

Looking down the columns of this table, the associations show clearly which libraries serve which region. Metropolitan New York City items are especially likely to be supplied by the State Library, the Brooklyn and Rochester area referral libraries (as expected), and two of the more specialized subject referral libraries. The upstate eastern region shows a very slight positive association with the use of materials from Buffalo, but the strength of the relationship is slim indeed. In general the associations for area referrals reveal more about which resources are not used than they do about which are used. For example, materials sent to the eastern region tend not to come from Brooklyn; central region requests are not especially likely to be supplied by Rochester, despite the designation of this library as the resource for some of these libraries; and western region items are not often supplied by Buffalo and Erie County. These outcomes are the appropriate ones, especially given the existence of the regional networks, since it would make little sense to try the same library twice.

The results for subject referrals should be less systematic, since geographic regions would not enter into these referral patterns in any obvious way. The results for the Engineering Society, New York University, Teachers College, Union Theological Seminary, and the American Museum of Natural History are all based on rather small numbers of actual referrals, and while they reflect accurately the patterns of use of these libraries, experience to date cannot be said to have been sufficient to establish a trend. If the associations for those libraries are ignored, however, the table still shows significant differences by region. The negative associations for the New York City region are easily explained by the proximity of patron and resource; once this is taken into account, the positive associations for upstate regions are a necessary corollary. Even so, the relative scarcity of subject referrals in general from the upstate central region still shows up in the data.

The New York State Library and the Referral Libraries

The first port of call for a request entered into the NYSILL system is the State Library. More than three-quarters of all the items filled by NYSILL come from this library,[2] which supplies most of the loans for requests ineligible for referral, as well as a good number of items which could be sent on to other libraries in the referral network. Table 5.4 reports the status of all requests sent to the State Library during the monitored period. Forty-seven percent of these were immediately filled; most of the remaining requests were simply not held by the State Library. Both of these proportions have increased in comparison with 1967 rates, and accordingly the portion of materials owned by the State Library but not available for loan has decreased to 11% (including those materials in the library's collection but not on the shelves and those which it would not send). One percent of the requests could not be handled due to insufficient information in the citation.

Table 5.5 shows how the referral libraries affect the final status of those items which the State Library could not fill. Of 205 requests in the sample which were owned by the State Library but not on the shelf, the referral libraries were able to fill 64, or about 31%; of items not owned by the State Library, the referral libraries supplied 236, or almost 30%. Only those requests which were actually referred could be filled, of course. The final status for items not referred is the same as their status at the State Library.

The table also shows that it was possible for referral libraries to disagree with the State Library on citations. Five requests were noted as inadequately cited after referral, even though the State Library had searched them.

The State Library supplied materials in every subject category, although it was somewhat less likely to fill requests in some classes than others. Table 5.6 shows the association between subjects and successful processing for all filled requests, for those supplied by the State Library, those supplied by the referral network as a whole, and those supplied by the subject referral centers. Looking down the columns of the table, and continuing to use an arbitrary criterion of plus or minus .20 to define the minimal values worthy of comment (as explained in Chapter IV), it can be seen that the subject distribution of materials supplied through NYSILL is approximately the same as the subject distribution of all requests, whether filled or not. Any particular strengths or weaknesses of the system will show up here as positive or negative correlations. For all of NYSILL there are no especially strong areas, and only two distinctively weak ones: fiction (an outcome

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[2] From Table 4.5.

Table 5.4

STATUS OF REQUESTS AT THE NEW YORK STATE LIBRARY, BY MONTH[a]

Status at New York State Library	Month			Total
	October	November	December	
Filled	49%	46%	46%	47%
NOS (Not on Shelf)	8	11	11	10
WNS (Will Not Send)	1	1	2	1
NIL (Not in Library)	41	40	42	41
Bad Citation	1	1	-[c]	1
Total	100%	99%[b]	101%[b]	100%

a. Excludes pending cases or items with unknown status.
b. Does not total exactly 100%, due to rounding.
c. Less than one-half of one percent.

Table 5.5

FINAL STATUS OF NYSILL REQUESTS, BY STATUS AT THE STATE LIBRARY: NUMBER OF CASES IN 10% SAMPLE

Final Status	Status at State Library					Total[a]
	Filled	NOS	WNS	NIL	Bad Citation	
Filled	1,003[b]	64	3	236	-	1,306
NOS (Not on Shelf)	-	125	-	47	-	172
WNS (Will Not Send)	-	5	22	25	-	52
NIL (Not in Library)	-	10	1	487	-	498
Bad Citation	-	1	-	4	17	22
Total[a]	1,003	205	26	799	17	2,050

a. Excludes 348 cases NA on status at State Library, or pending or NA on final status.
b. Includes the following numbers of items filled by the following special departments at the New York State Library: Science and Technology, 5; Medical, 90; Legislative Reference, 1; Education, 55; Periodicals, 3; Reference, 1; Law, 9.

Table 5.6

RELATIVE ABILITY OF NYSILL AND UNITS WITHIN NYSILL TO FILL REQUESTS IN DIFFERENT SUBJECT CATEGORIES

Subject	Association (Yule's Q) Between Item Being in This Subject Category, and Being Filled, at...			
	NYSILL as a Whole	State Library Only	All Referral Libraries[a]	Subject Libraries Only[a]
Natural Sciences:				
Physical Sciences	.00	-.12	-.08	+ .07
Biological Sciences (including Anthropology)	+.08	.00	+.24	+ .37
Social Sciences:				
Economics	.00	-.15	+.12	+ .21
Geography	-.34	-.34	-.34	- .34
Political Science	.00	.00	.00	.00
Sociology, Social Welfare	-.12	-.12	-.26	- .26
Psychology	.00	-.20	.00	+ .15
Humanities:				
Classics, plus English Language and Literature	.00	+.10	.00	- .44
Foreign Languages and Literatures	.00	-.34	+.15	+ .26
Philosophy and Religion	-.08	-.08	-.06	.00
Fine Arts	.00	.00	-.12	- .68
American History	.00	+.12	+.20	.00
Other History	.00	-.15	.00	.00
Professional Subjects:				
Business, Public Administration	.00	.00	+.15	- .20
Engineering, Technology	-.15	-.15	-.10	.00
Education	+.11	+.20	-.21	- .35
Medicine	+.09	+.09	+.15	+ .33
Law	.00	.00	.00	+ .34
Others:				
Fiction	-.21	-.21	-.15	- .61
Biography	.00	+.20	-.34	-1.00
Popular Nonfiction	.00	.00	.00	-1.00
Miscellaneous; Generalities	.00	.00	.00	.00

a. Based on referred cases only.

b. Meaning of category not clear. See Chapter IV.

consistent with the restrictions on NYSILL referrals) and geography. The State Library is particularly able to fill requests in the fields of education and biography, and appears to be weak in the fields of psychology and foreign languages and literatures.

The referral libraries are strong in the biological sciences and American history, and weaker in sociology and education. These libraries include the three general-purpose area referral centers, and thus the special strengths of the subject referral centers are concealed. The last column of the table reports the strengths and weaknesses of the subject referral libraries only. The results show that most of the referral network's strength in the biological sciences is due to the particular collections of these subject libraries, whereas on the other hand the subject referral centers show no special advantage in filling American history requests, the other subject class where the referral network proved particularly capable. Some of the other strengths and weaknesses of subject library collections were obscured by the area libraries; in particular, subject centers turn out to be especially likely to fill requests in economics, foreign languages and literatures, medicine, and law; and especially unlikely to fill requests for materials in classics, fine arts, business, and education.

NYSILL was originally planned so that the general-purpose area referral centers would be used first, followed by a second try for unfilled items at a subject center. Over time this procedure proved relatively inefficient, and more and more requests were sent to subject centers without first trying the area libraries. At the same time, the State Library decided to increase its use of second trials at area referral libraries. In the early days of NYSILL as many as five referrals were anticipated, but in practice few cases were ever referred more than twice; in 1967 requests referred once only accounted for nearly 78% of all items received by the referral libraries, and in 1968 the same proportion applies. This data is presented in Table 5.7 in the form of the numbers of requests sent to area and subject referral centers, for first and second referrals, respectively.

Although the table shows that the overall proportion of multiple referrals has not changed, there has been a reversal in the use made of the second referral. In the past most of these were sent first to area libraries and then to subject referral libraries. Now, however, the increased use of subject centers for first referrals and the use of second tries at area centers have combined to make second referrals to subject libraries relatively rare.

The total number of first referrals in this table is 753; of these, 223 were sent to a second library. Thus the 753 requests generated a total of 976 items sent to referral libraries. The status of these referrals, for each of the NYSILL referral libraries, is shown in Table 5.8. A little over half of the cases went to the area centers, which filled a quarter of the requests they received. Separate tabulations

Table 5.7

USE OF AREA AND SUBJECT REFERRAL CENTERS FOR FIRST AND SECOND REFERRALS: NUMBER OF CASES IN 10% SAMPLE

Referral	Type of Referral Library:		Total
	Area Center	Subject Center	
First	371	382	753
Second[a]	139	84[a]	223
Total[b]	510	466	976

a. Includes one-third referral.
b. Excludes 10 cases NA on referral library, and 4 cases referred and then treated a second time by the State Library.

Table 5.8

STATUS FOR ALL REQUESTS RECEIVED BY REFERRAL LIBRARIES, BY LIBRARY[a]
(10% SAMPLE, OCTOBER—DECEMBER 1968)

Library	Number of Cases	Status: Percent...[b]				
		Filled	NOS	WNS	NIL	Bad Citation
All Referral Libraries	976	40%	14%	5%	40%	1%
All Area Referral Centers	510	25%	18%	4%	52%	–[c]
...Brooklyn	162	23	20	5	51	1%
...Buffalo/Erie	210	28	17	5	50	–[d]
...Rochester	138	22	18	3	57	–[d]
All Subject Referral Centers	466	57%	8%	6%	26%	2%
...Columbia	102	54	21	5	21	–[d]
...Cornell	97	67	3	10	19	1
...Engineering Society	24	55	–[d]	–[d]	45	–[d]
...Academy of Medicine	58	70	12	–[d]	16	2
...New York Public	82	71	4	9	11	5
...New York University	66	23	4	4	68	2
...Teachers College	17	18	12	24	47	–[d]
...Union Theological	15	57	7	7	29	–[d]
...Museum of Natural History	5	100	–[d]	–[d]	–[d]	–[d]

a. Each extra referral counts as a new case. Excludes 14 cases NA on referral library or referred back to the State Library.
b. Cases NA or pending on status excluded from percentage base.
c. Less than one-half of one percent.
d. None.

not reproduced here broke this down further, to reveal that first referrals tend to have slightly a better likelihood of success at all libraries. These differences are relatively minor, however, and indicate that enough filled requests are generated by second referrals to justify the present routing practices of the State Library, including the use of more than one area center for some requests.

The filling rate for the area centers has gone down slightly from that experienced in the past (cf. An Evaluation of NYSILL, pp. 50-51). This is probably due both to improvements in the percent of all requests which were filled by the State Library and to the increased use of subject libraries for first referrals. Eighteen percent of all referrals received by area centers were not available for loan, and over half were not owned at all. Of the three area libraries, the Buffalo and Erie County Public Library had the highest proportion of filled requests.

Turning to subject libraries, 57% of all referrals were filled, compared to 42% in 1967. Again, items not owned made up the majority of unfilled requests. The different subject centers showed major differences within these overall figures, however. At The New York Public Library Research Libraries, the New York Academy of Medicine, and Cornell University, proportions filled approached or exceeded 70% of all referrals, while at Teachers College and New York University the rate was the same as that at the area referral libraries. These outcomes may be explained by special considerations at each of these two locations. For Teachers College, fairly heavy use by students of the collection plus a strict limitation on lendable materials results in the highest proportion of any library in the system for requests which the library would not send (almost a quarter of all items received), and one of the higher rates for materials not on the shelf. While these considerations are undoubtedly consistent with the Teachers College Library's first responsibility to its own community, they also severely hamper this library's contribution to NYSILL.

At New York University, very severe limitations imposed by dispersed facilities and other logistical matters make it difficult to search requests as thoroughly as the NYU reference librarians would like. The University has a union catalog, but a good deal of its collection is presently in storage; much is split into separate but overlapping collections housed in the Bronx and also at the main campus in Greenwich Village; the library must refer many items to other departments which may have different (and conflicting) interlibrary lending policies. All these problems contribute to the very high rate of items not filled at NYU, a rate which is two and a half times as great as in the other subject referral libraries. Again, these problems raise questions as to the appropriateness of this library as a NYSILL resource.

One other subject library requires detailed commentary: the American Museum of Natural History. Here very few cases were received, but all were filled. Despite the minimal data, this outcome suggests that this library is not being used as heavily by NYSILL as it should be. One possible solution is to give the Museum expanded subject responsibilities (for example, in anthropology).

Elapsed Times in NYSILL

Table 5.9 provides data for average time consumption in days between a number of points in the NYSILL system. These times differ in several major respects from earlier figures reported (An Evaluation of NYSILL, Chapter IV). First, data on times for processing prior to receipt at the State Library are no longer recorded, and in this study the only available information on such times came from a relatively small number of items sampled for both NYSILL and the review of the two regional networks (see Chapter VII). Despite the small number of cases, the times appear to be consistent with data from earlier reviews and from other portions of this analysis.

The second major difference is the availability of data on a point in the system not previously monitored: the time when filled requests were actually sent out of the library. For the State Library, this time represents the day when the library's mailing department reported that a request was ready for shipping; for subject libraries, it is the day the request was reported as sent. It is thus possible, in contrast to earlier studies, to allow for time consumed in the mail. This has a considerable impact on an evaluation of these data, as will be seen below.

The table provides all time figures required by the present analysis; it also indicates how reliable each average is, by showing the number of cases entering into each calculation. The relationships among these times are more easily explained, however, with reference to Figure 5.1, which depicts the numbers in the table on a flow chart. Beginning at the left-hand side of the diagram: about seven days were taken up between processing at the requesting libraries and receipt of a request at the State Library. During this time, items must be sent to the transmission site; they must be searched locally (this was done for most, if not all, of these cases, since they came from the Buffalo and Rochester regions); and the request must be TWXed to Albany.

Once a request arrives at the State Library, a number of outcomes are possible. It may fail to be filled, and also not referred. In this case the request is terminated and no additional time data applies. Alternatively, the request may be filled. Figure 5.1 shows that for these cases the processing time is rather fast, just two days on the average for a bibliographic search, locating the material on shelves, and getting items ready to mail. It should be noted, however, that the standard deviation for this time (not shown in the table) is almost five days, which indicates that it is not unusual for processing at the State Library to consume as much as a week or as little as a few hours.

Table 5.9

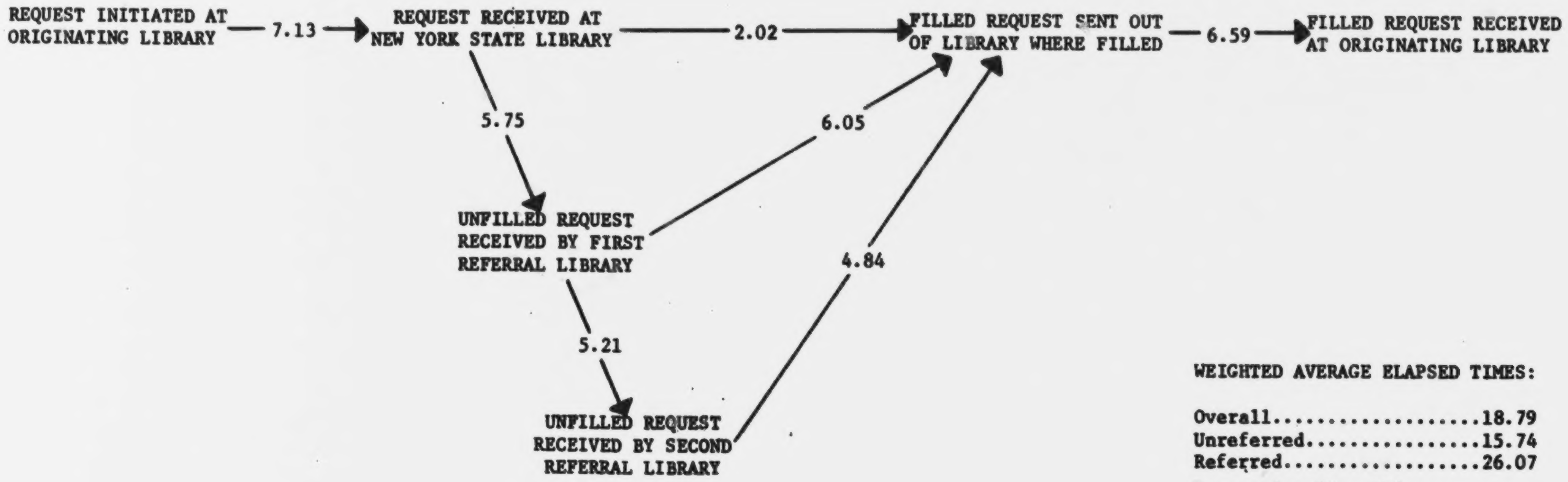
ELAPSED TIMES IN THE NYSILL SYSTEM
(10% SAMPLE; AVERAGE NUMBER OF DAYS ABOVE DIAGONAL,
NUMBER OF CASES USED BELOW DIAGONAL)

Request at...	Originating Library	New York State Library	First Referral Library	Second Referral Library	Sent	Received
...Originating Library	-	7.13[a]	-[b]	-[b]	19.39[a]	19.00[a]
...New York State Library	30[a]	-	5.75[c]	-[b]	2.02[d]	-[b]
...First Referral Library	-[b]	640[c]	-	5.21[c]	6.05[c]	-[b]
...Second Referral Library	-[b]	-[b]	223[c]	-	4.84[c]	-[b]
...Library Where Filled: Sent	23[a]	967[d]	348[c]	56[c]	-	6.59[e]
...Originating Library: Received	3[a]	-[b]	-[b]	-[b]	37[e]	-

a. Calculated on all cases for which originating times were available; for the most part these are requests sampled in both regional and NYSILL surveys.
b. Not computed.
c. Calculated on all referred cases.
d. Calculated only for cases which were not referred.
e. Calculated by using small subsample of postcard returns for two weeks only.

Figure 5.1. Average Elapsed Times to Process Requests in the NYSILL System

(10 percent sample; all figures are mean number of days consumed)


REQUEST INITIATED AT ORIGINATING LIBRARY
7.13
REQUEST RECEIVED AT NEW YORK STATE LIBRARY
2.02
FILLED REQUEST SENT OUT OF LIBRARY WHERE FILLED
6.59
FILLED REQUEST RECEIVED AT ORIGINATING LIBRARY
5.75
UNFILLED REQUEST RECEIVED BY FIRST REFERRAL LIBRARY
6.05
5.21
UNFILLED REQUEST RECEIVED BY SECOND REFERRAL LIBRARY
4.84

WEIGHTED AVERAGE ELAPSED TIMES:

Overall	18.79
Unreferred	15.74
Referred	26.07
Processing Time Only:	
Overall	5.07
Unreferred	2.02
Referred	12.35
Referred Once	11.80
Referred Twice	15.80

Finally, 5.75 days are consumed for requests which the State Library could not fill and then referred. During this period these items are searched, and since they have not been filled it is reasonable to expect the search to be more time consuming, particularly for materials not on the shelf. Once it is determined that the request will not be located, additional time is needed to make the referral decision, decide where to refer, and re-enter the request into the TWX communications system.

The same outcomes apply to processing at the referral libraries, except that these tend to take more time to actually fill a request. This is to be expected, given the fact that the State Library has "geared up" to handle NYSILL and traditionally has been more oriented than most libraries to interlibrary loan service. By contrast, the referral libraries must serve their own patrons and a heavy non-NYSILL interlibrary loan volume as well.

The last time shown on the flow chart is the average number of days taken up by delivery of the filled requests, regardless of where they were filled, from the time they were sent to the time they were received at the requesting library. This last point was again not recorded in data maintained by the State Library, but was obtained by the use of a postcard form asking for receipt dates for filled requests, for selected weeks during the monitoring period. The returned cards were then matched up with those requests selected for inclusion in the sample. Although this procedure resulted in a postcard sampling rate of only one in every hundred, enough returns were obtained to permit a reliable estimate of mailing time; the 37 cases used to compute this average are more than sufficient, given the random sampling procedures used.

Other biases were possible in that some libraries might not return the cards, but in fact this does not seem to have been a problem; a nearly perfect response rate was achieved. It was also thought that the proximity of the holiday mailing season could affect these times, but this does not seem to have been the case. Nelson Associates made an informal check for time consumption in the mail, and book-rate packages mailed around the state took about seven days to arrive at their destination--about the same results shown by the NYSILL sample data (6.59 days). By way of contrast, books mailed first class took as little as one day and no more than four days to arrive (weekends and holidays are included, as with all elapsed times reported in this study). This has implications for the choice of alternative delivery systems in NYSILL, a topic which will be explored in greater detail in Chapter VIII.

The previous studies also reported one additional time period, from receipt at the requesting library to patron pickup. This took an average of 2.62 days and did not vary at all during 1967. For this reason, no attempt was made to measure this interval again, the earlier data being acceptably reliable and consistent.

The lower right-hand corner of Figure 5.1 summarizes these times, combining individual intervals and weighting each by the number of requests which apply. This procedure yields an estimate of almost 19 days to process the average NYSILL request, from its initiation at an originating library to the receipt of material at that library. Standard deviations for these times show that individual requests vary greatly around this average, some taking as little as ten days overall or as much as 28 days. The time for unreferred requests is somewhat shorter, about 16 days; for referred cases, it averages 26 days.

While these times accurately measure the patron's total waiting period, they are less useful as indices of the performance of the system; more than half of the total is consumed either by processing prior to receipt at the State Library or by the mail. Thus the total processing time, which excludes these intervals, is the appropriate measure of the system's performance. None of the data available previously is exactly equivalent to this, since it was never possible in the past to separate out times for processing from time in the mail. The results show that the average request took a little more than five days to handle, with a standard deviation of plus or minus one week. For unreferred items this dropped to the two-day figure previously mentioned for the State Library. Referred requests took considerably longer, more than 12 days. This figure includes both first and second referrals, and when these are separated out, the times become 11.8 and 15.8 days, respectively.

How do these times compare with previous performance? Table 5.10 shows the appropriate 1967 data, adjusted to allow for the differences in interval definitions which were reviewed above. After this adjustment, it is clear that fall 1968 performance was a little better than that for 1967 as a whole, but not as good as that during the last half of 1968. None of these differences is very great, and when it is noted that 1967 data do not include such factors as the holiday season and the Hong Kong Flu epidemic, the best conclusion appears to be that there is really no significant change between the two years. This is a conservative estimate; for example, it assumes that time for mailing took as long during all of 1967 as it did during the fall of 1968. If, in fact, mail service was better in the earlier period, then the figures in the table for 1967 are too small, and gains in performance will be concealed.

Additional times have been calculated, as in past studies, to measure performance at the different libraries in the NYSILL referral network. These data are contained in Table 5.11, along with the analogous 1967 times (which are subject to the same reservations mentioned above). The table shows that almost all of the marginal improvement noted above between overall times for 1967 and 1968 can be attributed to major decreases in the time taken to make second referrals. In the past the unfilled first referrals were returned to the State Library for review; in NYSILL Phase II, this was changed and pre-coding of referrals substituted. Under this procedure the request is sent out with a routing order for referral, and if the first library cannot fill it the request is sent directly to the next library on the list. Not all of the improvement here is due to this innovation. During the last half of the

Table 5.10

COMPARISON OF SELECTED ELAPSED TIMES FOR NYSILL PROCESSING, 1967-1968

Elapsed Time	1968[a]	1967		
		Overall	1st Half: March-July	2nd Half: July-November
Overall, Origination to Receipt of Material at Originating Library	18.79	19.52[b]	22.86[b]	15.48[b]
...Unreferred only	15.74	15.48[b]	15.21[b]	15.68[b]
...Referred only	26.07	28.68[b]	39.25[b]	20.50[b]
Processing Time: from Receipt at State Library to Day Request Is Sent	5.07	5.53[c]	9.29[c]	3.11[c]
...Unreferred only	2.02	2.79[c]	4.11[c]	2.00[c]
...Referred only	12.35	16.23[c]	26.00[c]	8.10[c]

a. Data from Figure 5.1.

b. Data from *An Evaluation of NYSILL*, pp. 59-60. Data have been adjusted to allow exact comparisons by subtracting 2.62 days (for time from receipt of material to patron pickup) from overall figures.

c. Data from *An Evaluation of NYSILL*, pp. 59-60. Data have been adjusted to allow exact comparisons by subtracting 6.59 days (for time from day request was sent to receipt at originating library) from processing figures.

Table 5.11

ELAPSED TIMES AT REFERRAL LIBRARIES, OCTOBER-DECEMBER 1968 (CASE BASE FOR EACH MEAN IN PARENTHESES: 10% SAMPLE)

Referral Library	For Unfilled Requests: Average Number of Days to Receipt by Second Referral Library, When First Library Is the One Named		For Filled Requests: Average Number of Days to Process Request at the Referral Library Named, for First and Second Referrals	
	1967[a]	1968[b]	1967[c]	1968[b]
All Libraries Combined[d]	14.42 (3,902)	5.21 (223)	5.91 (1,652)	6.11 (403)
Area Referral Libraries	14.46 (3,834)	5.29 (201)	6.81 (1,029)	7.47 (168)
...Brooklyn Public	22.30 (1,035)	4.79[e] (19)	8.77 (334)	10.15 (39)
...Buffalo and Erie	10.75 (1,482)	7.66 (104)	4.28 (530)	8.32 (77)
...Rochester Public	12.47 (1,317)	2.26 (78)	10.98 (165)	4.17 (52)
Subject Referral Libraries	12.29 (68)	4.45 (22)	4.43 (623)	5.14 (235)
...Columbia University	13.41[e] (8)	5.50[e] (4)	3.87 (147)	4.59 (43)
...Cornell University	10.40[e] (19)	7.25[e] (4)	7.98[e] (16)	6.22 (60)
...Engineering Societies	3.78[e] (4)	7.00[e] (1)	-.47[c] (71)	4.09[e] (11)
...N.Y. Academy of Medicine	19.04[e] (5)	3.00[e] (1)	4.11 (200)	4.03 (36)
...New York Public	14.14 (28)	2.50[e] (8)	16.40 (43)	5.36 (56)
...New York University	-[f]	3.50[e] (2)	.11[e] (2)	6.72[e] (14)
...Teachers College	6.17[e] (4)	5.00[e] (2)	10.48[e] (12)	1.00[e] (3)
...Union Theological	-[f]	-[f]	3.28 (93)	2.50[e] (8)
...Museum of Natural History	-[f]	-[f]	-[f]	7.50[e] (4)

a. From *An Evaluation of NYSILL*, p. 68.
b. 10% sample, this study.
c. From *An Evaluation of NYSILL*, p. 68; 6.59 days deducted for time consumed in delivery, to allow comparison with 1968. This subtraction resulted in the negative time for the Engineering Societies.
d. Excludes cases where referral library could not be identified.
e. Not significant; too few cases (less than 20).
f. No such cases in sample.

1967 study this time had already been reduced to a little under ten days, and during the latter months of Phase I it was further reduced to seven days (see An Evaluation of NYSILL, pp. 59-60, and Appendix C, Table C.16). The direct routing of referrals has certainly not slowed processing, however, and it is likely that this is at least partially the reason for the further reduction of time for second referrals to the current average of slightly more than five days.

Another reason for improved service may be the State Library's five-day time limit for processing at referral centers. On the average, libraries are coming close to this requirement. The Brooklyn Public Library shows a figure of almost ten days to process a filled request, but this is a bit misleading. At this library, all requests received are searched at Brooklyn, and the list annotated to indicate what has been filled. The entire list is then TWXed to The New York Public Library Circulation Libraries. Unfilled requests are searched again, the list annotated a second time, and the entire batch then TWXed to the Queens Borough Public Library. Again unfilled requests are searched, the list annotated, and only then is the entire list returned to Brooklyn for reporting to the State Library. The procedure may consume four or five days, and results in a considerable increase in filled requests (in the 1967-68 fiscal years, of 4,807 requests tallied at Brooklyn, BPL filled 779, NYPL filled 434, and Queens filled 290). While this system undoubtedly results in slower times for the Brooklyn referral center, the delay is probably no worse than would be experienced if unfilled items were to be immediately referred to one of the other area referral centers. The previous NYSILL report suggested that the use of this subsystem be discontinued, but with the general decrease in use of area referral centers this no longer seems to be the answer. It would be preferable to include consideration of this system as part of a general review of the role of the area libraries.

Inspecting the results for other libraries, the table shows that the Rochester Public Library now is the area center which processes requests most quickly. It also has the lightest load, in contrast to the Buffalo and Erie County Public Library where heavy demands made both by NYSILL and by the new regional interlibrary loan network may contribute to relatively slower handling.

At the subject referral centers, processing is slightly faster. In every case where sufficient cases are available for reliable data, the times are close to, if not below, the five-day requirement. At least one center, The New York Public Library Research Libraries, shows substantial reductions in processing time since 1967.

The Costs of Operating the Referral Network

The State Library provides two kinds of reimbursement to referral centers, as outlined in Chapter I: participation grants made in general support of the work necessary to establish coordination and communication with the State Library, and unit fees to cover costs for handling individual loans. The latter are set at $2.00 for every item filled, no matter where, and $1.00 for every item received by an area center, $2.50 for every item received by the subject centers. Data on these fees have been recorded in Table 5.12 to generate unit costs to the state for each library.

The first column of the table gives the total unit fee costs for the three-month monitoring period, based on estimates of total volume and total numbers of filled requests supplied. These estimates, in turn, are based on data from this study, and not on records submitted directly to the State Library by referral centers; as such they do not reflect any official payment schedules. The second column gives the participation grant, prorated to apply only to the period monitored. These two figures are combined in the third column of the table. The last three columns simply divide these amounts by the estimate of total filled items, to indicate the costs of obtaining materials from each library. Overall, the data indicate that the average cost of a referred NYSILL request during the fall of 1968 was $10.82, of which $6.65 was covered by unit fees and $4.17 by participation grants.

At area referral libraries, the average costs are slightly lower, as would be expected from the reduced unit fees in effect for these centers. The larger participation grant at Rochester raises the unit cost for its requests considerably, however. Among the subject libraries, unit costs are moderate at the Academy of Medicine, The New York Public Library Research Libraries, and Cornell University; they are somewhat higher than the average but still moderate at Columbia University, the Engineering Societies Library, and Union Theological Seminary. Most of the differences between the first three libraries and the latter three can be attributed to participation grants which apply to relatively larger numbers of filled requests at the less costly libraries.

At the remaining three libraries, unit costs are high and deserve detailed review. At the Museum of Natural History, the fee expenses are the lowest in the entire system, due to the fact that this library filled all five cases recorded as sent to it in the 10% sample. As mentioned above, such a limited amount of data is not sufficient to establish any reliable precise results, yet even so it can be safely said that this library is doing an excellent job of handling the requests it receives. For example, a second sample of requests received by this library would have to show a filling rate of zero--no items supplied--to bring overall performance down to even a 50% success estimation. Given the fact that the data are based on a random sample, this kind of outcome is so unlikely to be safely regarded as impossible. If performance is good, why the very high unit costs? They are due entirely to the contribution of the participation grant and reflect the fact that the State Library simply did not send this library enough items to make its investment pay off. With this in mind, it is concluded that if the volume of referrals sent to this library can be increased, then costs will probably decrease to more acceptable levels.

Table 5.12

ESTIMATED COSTS OF FILLING REFERRED NYSILL REQUESTS, OCTOBER-DECEMBER 1968 (10% SAMPLE)[a]

Library	Payments from the State Library			Costs per Unit Filled[d]		
	Unit Fees[b]	Participation Grants[c]	Total	Unit Fees Only	Participation Grants Only	Total
All Referral Libraries	$23,950.00	$15,014.09	$38,964.09	$ 6.65	$ 4.17	$10.82
All Area Referral Centers	$ 7,500.00	$ 3,569.17	$11,069.17	$ 6.25	$ 2.97	$ 9.22
...Brooklyn	2,340.00	1,070.75	3,410.75	6.50	2.97	9.47
...Buffalo-Erie[e]	3,200.00	1,070.75	4,270.75	5.82	1.94	7.76
...Rochester	1,960.00	1,427.67	3,387.67	6.76	4.92	11.68
All Subject Referral Centers	$16,450.00	$11,444.92	$27,894.92	$ 6.85	$ 4.77	$11.62
...Columbia	3,430.00	2,332.67	5,762.67	7.80	5.30	13.10
...Cornell	3,645.00	2,332.67	5,977.67	5.98	3.82	9.80
...Engineering Societies	840.00	876.00	1,716.00	7.00	7.30	14.30
...Academy of Medicine	2,250.00	1,008.33	3,258.33	5.63	2.52	8.15
...New York Public	3,130.00	1,749.50	4,879.50	5.80	3.24	9.04
...New York University	1,910.00	985.00	2,895.00	14.69	7.58	22.27
...Teachers College	485.00	646.50	1,131.50	16.17	21.55	37.72
...Union Theological	535.00	652.25	1,187.25	6.69	8.15	14.84
...Museum of Natural History	225.00	862.00	1,087.00	4.50	17.24	21.74

a. Estimation excludes labor and processing costs at the State Library, and also excludes line charges for TWX service.

b. From survey data, weighted by a factor of 10 to reapproximate actual volume. Area referral libraries were figured at $1.00 for each item received, $2.00 for each item filled; subject libraries at $2.50 for each item received, $2.00 for each item filled.

c. Prorated to cover only October-December 1968.

d. Costs divided by total items supplied (survey data x 10).

e. Does not include funds for support of regional network.

At the other two libraries, the outlook is not so favorable. The strength of the State Library's education collection results in relatively few referrals to Teachers College, and the low filling rate previously reviewed raises unit costs still more. The result is the highest unit cost of any library in the system: $37.72. It is doubtful that this center can continue in the system unless this cost can be reduced. At New York University, the problem is limited to that institution's relatively low rate of filling; many items must be processed, at $2.50 each, for each one actually filled. Recalling the discussion of this situation above, one solution to these costs may be to review the subject responsibilities at NYU, cutting them back to those topics which can be more effectively handled at the Washington Square campus only. This would relieve the library of the need to draw on all of its departments; NYSILL responsibilities could be more concentrated.

How do these costs compare with 1967 outcomes? Table 5.13 shows that in general there has been a major reduction in expenses per item filled, despite a relatively small overall increase in cost due to growth of the system. The table reports estimates of average expenses per month, to permit a more equitable comparison between data for the two years. The data show that overall unit fee costs have gone up 58%, reflecting growth and the increased use of subject libraries; balancing this, however, the participation grants have been cut substantially. The increased filling rates achieved by the greater use of subject centers has balanced out the extra expense involved in using these libraries, so the unit fee costs per filled request for 1968 are only slightly higher than in the previous year.

The state's reduction in the size of participation grants suggests a workable solution to the problem of the particularly expensive referral library. For the most part, especially costly NYSILL service may be traced to participation grants which must be allocated among a relatively small number of filled loans. If the State Library could make major reductions in participation grants for these libraries, a much better case could be made for retaining them as part of the system. This would also make it possible to consider adding other referral libraries to fill gaps in service. For example, the Metropolitan Museum of Art, phased out early in 1968 because of its high unit costs, could certainly help improve the weak filling rates among subject referral libraries for fine arts requests; but volume is low enough that the Museum would have to be willing accept a very small grant over and above the unit fees.

Summary

Four factors--volume, filling rates, elapsed times, and costs --comprise the major criteria by which the NYSILL system must be judged. We have seen that the first of these, volume, has more than kept pace with overall volume levels of interlibrary loan in New York, and that it can be expected to rise still more in the future. At the same time, the ability of the system to fill the requests which it receives has consistently improved, and costs, on an item-supplied basis, have been cut by

Table 5.13

CHANGES, 1967-1968, IN COST STRUCTURE OF THE NYSILL REFERRAL NETWORK: AVERAGES ON A MONTHLY BASIS

	Payments from State Library[b]			Costs per Unit Filled		
	Unit Fees	Participation Grants	Total	Unit Fees Only	Participation Grants Only	Total
1967	$5,050.50	$7,186.52	$12,237.02	$6.52	$9.28	$15.80
1968	7,983.33	5,004.70	12,988.03	6.65	4.17	10.82
Increase/ Decrease	+$2,932.83	-$2,181.82	+$ 751.01	+$ .13	-$5.11	-$ 4.98
Percent Increase or Decrease	+58%	-30%	+6%	+2%	-55%	-32%

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a. Data from previous table and *An Evaluation of NYSILL* (New York: Nelson Associates, 1967), pp. 89-90.

b. Monthly averages for March 22-November 21, 1967; October-December 1968.

nearly a third. On all these counts, the system's performance leaves no doubts that it should be continued on a permanent basis. One final factor, time, has not shown such improvements since the early months of the experiment. On the other hand, the analysis has indicated that elapsed times for actual processing are reasonably good. Given continued effort, the time consumed by delivery, or by processing prior to receipt of requests at the State Library, could probably be reduced; improvements here would have major effects on the system because they would affect all filled requests. Suggestions to this end are included in later chapters of this report, and with these in mind, the present time performance of the system has been judged good enough to warrant continuation of the service. After all, despite a waiting period of nearly 19 days on the average, patrons show no hesitation about using NYSILL. The final test of any library service has to be use, and there is no doubt that a great many people are using NYSILL, obtaining materials, and returning to use it again.[3]

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[3] A possibility checked in a rough way by the inclusion in this study of some requests sampled both for the review of the Rochester regional network and for the analysis of NYSILL. The actual name of the patron was available from Rochester records, and was encoded to see if more than a single request might turn up for a single person. Some did, separated by a reasonable interval of time so that it could be concluded that the patron did not simply ask for two books at once. Some of these requests were serviced by NYSILL. Additional cases of this sort were noted in the process of sampling, even though they may not have been selected for inclusion.

Chapter VI

NYSILL AS A SYSTEM: A STATISTICAL ANALYSIS

The preceding chapters have provided a description of what goes into the New York Interlibrary Loan network and what happens to requests once entered into this system. A number of important questions have not been answered, however. To name some of these: is it really necessary to use an "eligibility" criterion to define what may be referred? Do patrons with serious research and reference needs get better service than others? Is it possible to define the kinds of requests most likely to be filled by the State Library, the referral libraries, or the system as a whole?

Such questions must be treated within the context of the entire system. To judge the real usefulness of the eligibility rule, for example, other factors must be taken into consideration: the patron status of the request and the type of library from which it came. Such variables are related to eligibility; indeed, they may wholly determine it. If this is the case, it might turn out to be easier simply to refer all requests unfilled by the State Library from faculty and students, no matter what kind of originating library they used.

To treat questions such as these without the aid of mathematical analysis would simply not be practical. In the words of Anatol Rapoport, "When we speak of causal relations in ordinary language, we tend to establish them pair-wise: a cause linked with an effect. 'Why is the water in the kettle boiling?' 'Because the kettle was placed over a fire.' On further reflection, we realize that such answers are far from adequate . . . If we tried to combine all of [the factors affecting the boiling water] into a single causality statement . . . the statement would be incomprehensible. Ordinary language is too clumsy to deal with the intricate web of all these relations. Mathematical language, however . . . has evolved in just the way required to deal with situations where not only several 'causes' converge on a single 'effect' but also where the 'causes' and 'effects' all interact with each other." [1]

We would not wish to exaggerate the importance of this kind of analysis for NYSILL. To a large extent, the kinds of tricky questions which can be settled with the help of precise mathematical paradigms are often just as reliably handled by unassisted judgment. Since the techniques are available, however, we have elected to try them out. This makes a check on judgment feasible, allows the profession to gauge the sensibility of such approaches to library data, and permits the reliability of other findings to be evaluated by comparing the results of percentage distributions, analyses of volume, etc. with parallel conclusions reached by rather different methodologies. At the outset, it can be stated that the findings below are consistent with those formed in previous chapters, and if the reader finds himself reluctant to follow the tortuous paths of statistical inference, he is invited to skip the remainder of this chapter with the assurance that overall conclusions will not be materially changed.

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[1] From the foreword to Buckley, ed., Modern Systems Research for the Behavioral Scientist (Chicago: Aldine, 1968), pp. xiv.

Correlational techniques have been employed for this analysis; these allow any degree of complexity once all of the relationships between any two variables have been measured. Few precedents exist for treating library data with such methods, and so to a large degree the analysis which follows must be regarded as an experiment. More work of this nature will need to be done before the full potential of these techniques can be realized.

Not all variables used in the study were selected for this review. Many factors seemed relatively unimportant (such as the age of the material requested), others could not be treated without taking more time than the study plan allowed (subject matter of the requests), and still others could not be measured (the rarity of an item). One major factor affecting the operation of NYSILL has not been considered at all: the skill and effort expended by the people who run the system. Obviously differences of professional ability have important consequences on a request's chances of being filled quickly, but as yet no very good way exists to take into account the effects of personnel on NYSILL service.

The final analysis was restricted to a set of 12 variables. These are listed in Table 6.1, along with definitions of the categories for each, the mean value of the variable, and its standard deviation. The latter information will not be reviewed in this text; it is included to enable readers to do additional analyses of these data, if they desire. Simple two-way product-moment correlations were then computed for all combinations of these 12 variables and are reproduced in Table 6.2. Once the meaning of each item is made clear by inspecting Table 6.1, these correlations may be easily interpreted. For example, the association of +.51 at the upper left-hand corner of the table means that there is a fairly strong positive relationship between a request being eligible and being sent in by either a faculty member or a student. That is, requests from academic patrons are likely also to be eligible requests. These two tables contain all of the data required for the remainder of this chapter.

Table 6.1

MEANS, STANDARD DEVIATIONS, AND NUMBERS OF CASES, FOR VARIABLES USED IN CORRELATION ANALYSIS OF NYSILL[a]

Variable	Category Values[a]	Mean	Standard Deviation	N
Academic Patron Status	If faculty or student, = +1; otherwise, = 0	.23	.42	2,398
Request Eligible	If eligible, = +1; if not, = 0	.47	.50	2,398
English Language	If English, = +1; if not, = 0	.93	.25	2,082
Request Verified	If verified, = +1; if not, = 0	.85	.36	2,080
Request for Book	If for book, = +1; if not, = 0	.72	.45	2,066
Library Type Public	If public, = +1; if not, = 0	.74	.44	2,344
Library Size Large	Numbers of Volumes:[b] less than 100,000 = +1; 100,000--499,000 = +2; 500,000--999,000 = +3; 1,000,000 or more = +4.	1.54	.91	2,344
Library Region Upstate	If Upstate, = +1; if not, = 0	.64	.48	2,344
Filled at State Library	Yes = +1; No = 0	.47	.49	2,141
Filled at Referral Library	Yes = +1; No = 0	.13	.33	2,398
Filled, Overall	Yes = +1; No = 0	.63	.48	2,145
Processing: Short Time Consumption	Number of days from receipt at State Library to time sent, regardless of where filled	4.39[c]	6.92	1,263

[a] No answers excluded on all variables except patron status (see Chapter IV).

[b] Coded in thousands of volumes.

[c] Differs by seven-tenths of a day from estimate in Chapter V. This is a point-to point estimate, based on different cases than those with data on detailed times (which were combined by weighting to produce the analogous time previously cited). Correlations in this chapter which use time have had their sign reversed, to reflect the fact that it is the low numeric values (small numbers of days) which stand for the more desirable outcome.

Table 6.2

PRODUCT-MOMENT CORRELATIONS FOR TWELVE SELECTED VARIABLES DEFINED IN TABLE 6.1

VARIABLES:	General Descriptors					Requesting Libraries			Outcomes			
	Academic Patron Status:	Request Eligible:	English Language:	Request Verified:	Request for Book:	Type is Public:	Size is Large:	Region is Upstate:	Filled at State Library:	Filled at Referral Library:	Overall: Filled in System:	Processing: Short Time Consumption:
Academic Patron Status:	----	+.51	-.17	+.12	-.34	-.57	+.05	+.21	+.05	+.24	+.18	-.18
Request Eligible:		----	-.11	+.16	-.24	-.26	+.20	+.22	.00	+.33	+.21	-.26
English Language:			----	-.01	+.17	+.23	-.21	-.12	+.17	-.23	.00	+.17
Request Verified:				----	+.11	-.01	-.05	-.18	-.03	+.06	+.01	-.04
Request for Book:					----	+.42	-.28	-.25	-.12	-.12	-.24	+.12
Type is Public:						----	-.15	-.30	-.02	-.20	-.15	+.19
Size is Large:							----	+.27	-.07	+.12	+.10	-.15
Region is Upstate:								----	+.02	+.12	+.13	-.12
Filled at State Library:									----	-.38	+.74	+.61
Filled at Referral Library:										----	+.31	-.62
Overall: Filled in System:											----	+.01
Processing: Short Time Consumption:												----

Most of the correlations in this table verify conclusions reached in previous chapters about the nature of NYSILL. In this form, however, the different associations are all measured on a common scale, so that it becomes possible to judge the relative impact of each kind of finding. Beginning with the interactions among the five items chosen as general descriptors of the requests, most correlations are fairly moderate in strength compared to that between academic patron status and eligibility mentioned above. Both of these variables are positively related to the request being verified, and since negative correlations with the book/nonbook variable indicate positive relationships with requests for nonbook materials, both academic status and eligibility are directly related to requests for periodicals and other nonbook items. Due to the symmetrical nature of correlation coefficients, the reverse is also true: requests from patrons with non-academic statuses, as well as ineligible requests, are more likely to be for book materials, and more likely not to be verified.

As was mentioned above, however, academic status and eligibility are closely related. The question, then, is whether the associations between academic status and verification, or those between academic status and seeking nonbook materials, are spuriously high because of the mutual effects of eligibility on all of these items. Alternatively, it could be that the associations with eligibility are the spurious ones because of the mutual effects of academic status. To phrase the problem in its most general terms: to what extent, if at all, do we tend to be misled about a possible relationship between two characteristics of NYSILL requests because the association is really due to the effects of a third (or fourth, or fifth) characteristic acting on both factors?

Here a study of NYSILL must come to grips with the classic problems of explanation. We have not attempted to describe all of the possible theoretical issues here, but a non-NYSILL example should provide a helpful illustration. The most famous case is that of the correlation between stork nesting and the birth rate in Holland (it happens that storks prefer nesting on chimneys, and as population and hence the number of buildings increases, so does the number of places for storks to nest). To ignore interactions with other variables means that the study of NYSILL runs the risk, in effect, of reporting that babies are brought by the stork.[2]

It is possible to allow for these effects of other factors by calculating new correlation coefficients which allow for (or "control

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2 An elegant formal statement of these problems will be found in Patricia Kendall and Paul F. Lazersfeld "Problems of Survey Analysis," in Merton and Lazersfeld, eds., Continuities in Social Research: Studies in the Scope and Method of "The American Soldier" (Glencoe: Free Press, 1950), pp. 133-167.

Table 6.3

EFFECT OF ACADEMIC STATUS AND ELIGIBILITY ON SELECTED DESCRIPTORS OF REQUESTS

Descriptive Variable:	Correlation with Academic Status:		Correlation with Eligibility:	
	Original Value[a]	Eligibility Held Constant[b]	Original Value[a]	Eligibility Held Constant[b]
Request for Book	-.34	-.27	-.24	-.09
Request for English Materials	-.17	-.13	-.11	-.02
Request Verified	+.12	+.05	+.16	+.12

a Simple two-way correlation from Table 6.2.
b Partial correlation calculated from data in Table 6.2.

for," or "hold constant," or "remove the effects of") other variables.[3] The results for the problem under consideration here are shown in Table 6.3. Taking up first the propensity to request or not request material in book form, if eligibility is held constant (i.e., its effects are removed from the original correlation), the association between academic status and seeking nonbook materials remains fairly sizable. But when the effects of academic status are removed from the relationship between eligibility and requests for book materials, the effect of eligibility is considerably diminished. We may say, then, that patron status, and not eligibility, is the factor which should be taken as the more important determinant of the propensity to request or not request a book. This patron status effect is less important than the original simple correlation seemed to imply; allowing for eligibility did reduce the strength of the relationship (from -.34 to -.27). This is an inevitable result of our more detailed analysis, which serves to account for an original

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[3] Formally, the partial correlation coefficient. The formula to derive the partial correlation between variables one and two, holding constant variable three, is:

$$r_{12.3} = \frac{r_{12} - r_{13}r_{23}}{\sqrt{(1 - r_{13}^2)(1 - r_{23}^2)}}$$

effect by dividing it into its component parts. Nonetheless, even after this loss of strength, the patron effect is still stronger than that of eligibility when the latter variable is also controlled. The same conclusion applies to determinants of the language of the materials requested. For verification, however, the interpretation is reversed. Here it is eligibility rather than patron status which emerges as the more important determinant of whether or not a request will be verified. These results are entirely consistent with expectations about how NYSILL ought to function, of course; their usefulness here is to confirm that the system is indeed operating consistently with our impressionistic understanding of it.

The data in Table 6.2 for characteristics of originating libraries are again reflections of data presented earlier in the forms of numbers of cases, percentages, or other descriptive statistics in Chapter IV. Academic requests tend not to come from public libraries, as would be expected. There is some tendency for these requests to be more heavily concentrated in the upstate regions. The public libraries using NYSILL tend to be relatively small and in the downstate area.

These results bring to mind the analysis in Chapter II of all loans in New York. There it was noted that in general the non-public, small, upstate libraries tended to have the best success rates with interlibrary loan. The data in Table 6.2 are not quite consistent with this picture; for NYSILL, large library size is weakly associated with higher filling rates. NYSILL is designed, of course, to be especially able to handle more difficult materials; it would be surprising if the system did not differ in some respects from overall patterns of interlibrary loan in New York. Again, however, the question of interactions remains. Are each of these effects of library characteristics valid, or could it be that the associations for library size, for example, are really a function of type and region?

Additional partial correlations were computed to deal with this problem and are shown in Table 6.4. It is apparent that some degree of interaction among the library characteristics exists; this much is clear from the data in Table 6.2, which showed that, for example, there was a positive correlation of +.27 between having a request come from a larger library and having it come from upstate New York. These interactions are not pronounced enough, however, to have much effect on the explanation of the effects of the library characteristics on overall filling rates. None of the partial correlations shown in Table 6.4 between overall filling rates and type, size and region are much smaller than the original simple two-way associations, not even when the effects of two of the three factors are simultaneously held constant. It may be concluded, then, that each one of the three characteristics contributes to an understanding of the system. To be sure, the associations are not particularly strong, but then they should not be expected to be very powerful. If they were, then it could be concluded that NYSILL tends to serve one kind of library--which would not be consistent with the goals of the service.

Table 6.4

ANALYSIS OF INTERACTIONS: CHARACTERISTICS OF ORIGINATING LIBRARIES AND OVERALL FILL RATES

Characteristic	Correlation With Filling Overall, Allowing for...				
	Type	Size	Region	Both Other Variables	None of These[a]
Library Type: Public	----[b]	-.14	-.12	-.12	-.15
Library Size: Large	+.08	----[b]	+.07	+.06	+.10
Library Region: Upstate	+.09	+.11	----[b]	+.08	+.13

a From Table 6.2.
b Does not apply.

The general weakness of the correlations in Table 6.2 for associations with filling of requests at the State Library indicates that no variable in this analysis will really contribute very much to an understanding of what this library is likely to successfully process. There are only two correlations here larger than plus or minus .10--one reflecting the weakness of the State Library for foreign language materials (+.17) and one reflecting the general ability of both the State Library and the referral libraries to fill requests for materials from the serials literature (-.12). Neither of these correlations is large enough to suggest any changes in procedures. For example, despite the fact that the State Library is shown to be less able to provide non-English materials than English materials, the difference is not great enough to imply that non-English requests should not continue to be searched at Albany.

The associations for filling at referral libraries are much stronger. The referral centers are likely to fill academic requests, foreign language requests, and requests from non-public libraries; they are slightly unlikely to fill requests for books or requests from smaller downstate libraries. The positive association of +.33 between eligibility and filling in the referral network reflects the rule that only eligible requests may be referred in the first place. Similarly, the negative correlation of -.38 between filling at the State Library and filling elsewhere simply functions as a measure of the filtering effect of the former institution.

Table 6.2 also provides correlations between the variables in this analysis and processing speed. In general, the results underscore the considerable penalty in elapsed time which must be paid in order to make use of the referral libraries. Simply having a request filled by the State Library accounts for a very large part of the variation in processing times (a correlation of +.61). Once again, however, the question of interactions arises. It may be asked, for example, if filling at the State Library is no more than another way of looking at patron status, since academic requests tend to get referred. Here partial correlations are no longer useful as an approach to an analysis; there are so many variables or combinations of variables which could be "held constant" that the final results would in all likelihood be obscured. Instead, a different approach was taken, using multiple correlations to examine the relationships between several variables and eventual filling at a referral library, or eventual fast processing times. Such a technique is called "path analysis" and has considerable advantages in clarity and ease of understanding.[4]

The analysis begins by identifying the variables of interest and deciding where each should be placed in the overall context of cause-and-effect relationships in NYSILL. Clearly eligibility of requests is important, because it should serve to control which requests are referred. If no relationship between eligibility and filling in the referral network remains after taking other factors into account, then it could be concluded that it would not really be necessary to bother with the criterion in the first place. Academic patron status has been included both because it is of major interest in and of itself, and because it is a major determinant of eligibility. Just as the two variables were compared for their interacting affects on other descriptors of NYSILL requests, they must be treated together in examining rates of filling and speed. Of the three variables which deal with originating library characteristics, type (public versus all other) was chosen to take into account the fact that NYSILL serves differing kinds of institutions. Finally, filling of requests at the State Library was included in the analysis, to allow for the filtering effects of that institution on filling elsewhere, and to take into account the fact that successful processing at Albany is the most important factor in attaining reasonable processing speed.

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[4] This report is not the place to explain path analysis, which is based on multiple regression statistics. For the interested reader, however it may be noted that the path coefficients are derived from the partial regression weights in a set of successive regressions. The method was originally developed for studies in biometrics by Sewell Wright ("The Method of Path Coefficients," Annals of Mathematical Statistics, V [September, 1934],161-215) and has recently been refined and applied to data in the social sciences by Otis Dudley Duncan ("Path Analysis: Sociological Examples," American Journal of Sociology, LXXII [July, 1966], 1-16). The reader more interested in substance than method will prefer Duncan's discussion in his American Occupational Structure (with Peter M. Blau: New York: John Wiley and Sons, 1967), pp. 115-205.

The results of this analysis are presented in Figure 6.1, in the form of a flow chart showing the causal paths from one variable to succeeding variables. If no path is depicted on the chart, no significant cause-and-effect relationship could be found within this system of variables. Although the path coefficients are not correlations,[5] interpretations are similar: a large positive number means that the association is strong and the relationship is positive, a small positive number means that the association is weak but the relationship is still positive, a large negative number means that the association is strong but inverse, and so on. The paths show net effects, meaning that the interactions among all preceding variables in the diagram have been taken into account.

The paths from outside the system of variables shown in the figure are a residual measure of the effect of everything not explicitly taken into account: other variables available but not used, other factors which could not be measured (such as professional ability or the varying rarity of different materials), random chance, and errors of measurement. Thus these residual paths show clearly that the factors examined here leave much to be explained about variation in NYSILL. It should also be noted that the findings here hold only for a system limited to these variables. If another factor had been introduced into this analysis, both the paths and their relative weights would change. For example, if the condition "referred/not referred" had been included, we would expect that the importance of direct effects on filling at referral libraries might be substantially reduced; instead, most of these effects could then be channeled through the condition of referral.

Taking up first the effects which contribute to filling at referral libraries, it is obvious from the figure that associations between academic status and eventual successful use of the referral network are mediated by both eligibility and the use of the State Library. Some academic requests are filled at Albany, and thus contribute indirectly to a reduction in the overall rate of success at referral libraries. From tabulations in Chapter IV, we know that these are likely to be student requests rather than ones from faculty members. Even with both eligibility and Albany acting as mediators of academic status, however, some direct effects still remain. Direct effects also exist between public libraries as originators of requests and a lack of success with the referral libraries. The absence of paths between public libraries and any other intervening factors shows that the reduced success which public libraries experience with NYSILL is entirely due to outcomes at referral libraries; at the State Library, there are no differences in filling by library type.

The results for elapsed time are similar, except that the direction of the relationships reverses (because use of referral libraries contributes heavily to slow time), the effect of filling at Albany becomes

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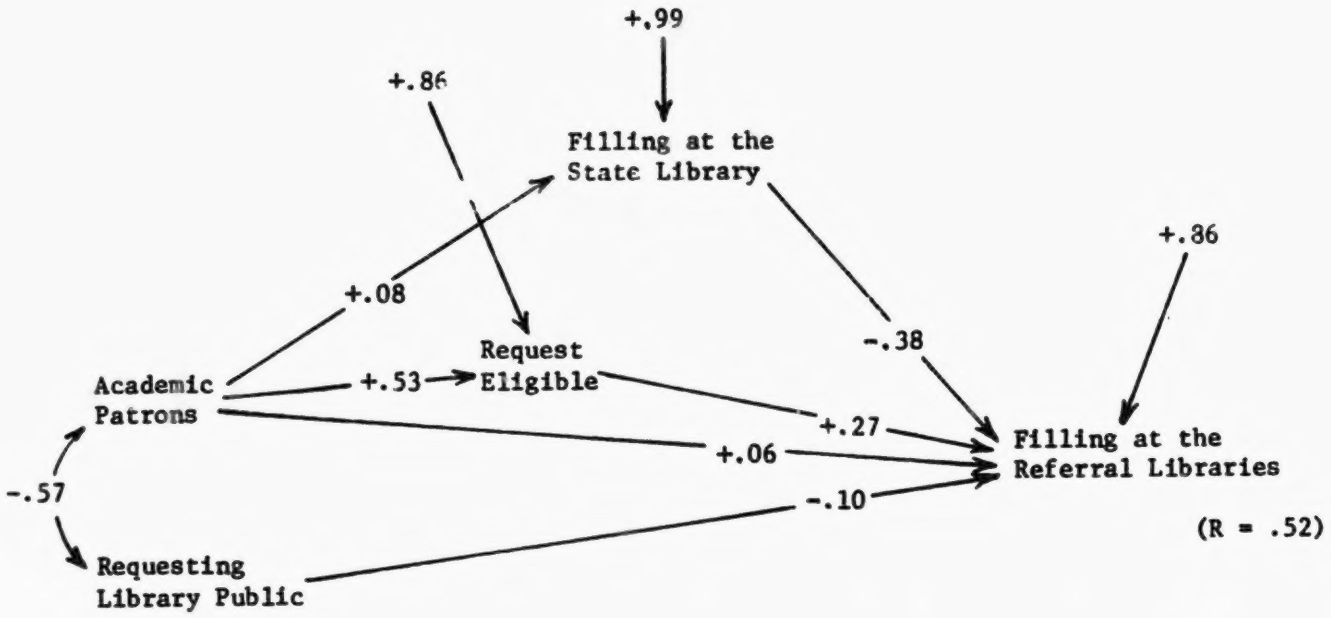
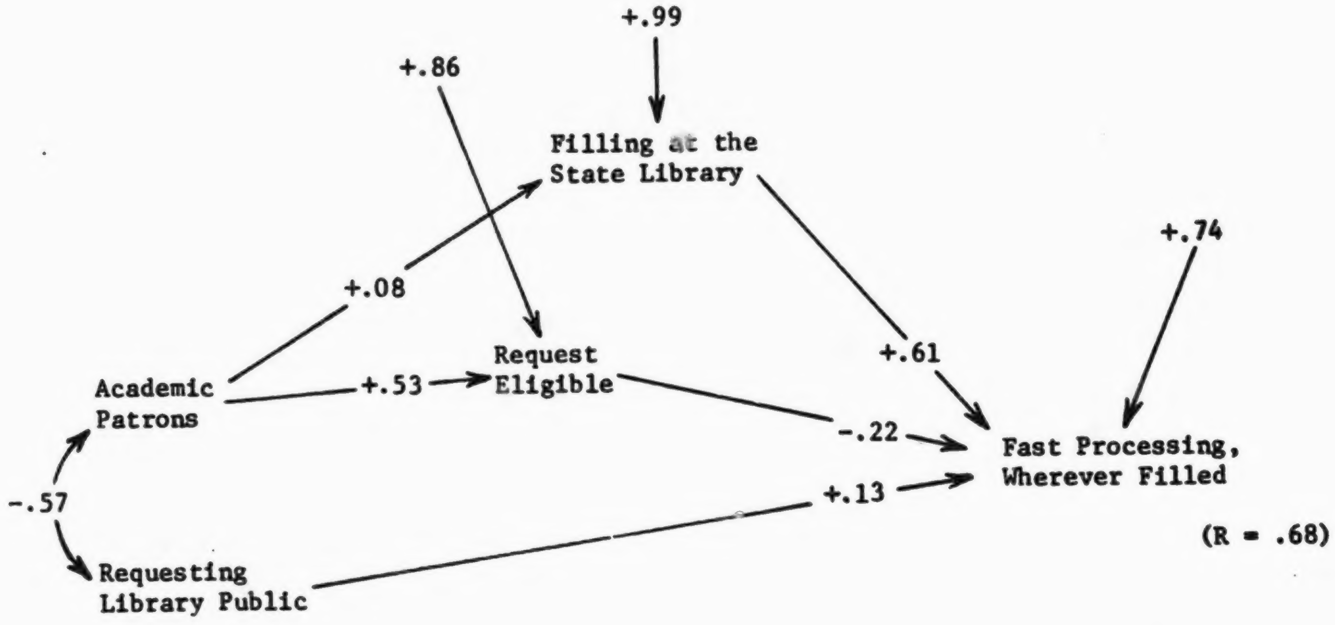
[5] With the exception of the "path" between eligibility and academic status, depicted at the far left of the diagram. Here the correlation is used because no cause-and-effect assumptions have been made.

Figure 6.1. Flow of Interactions Among Selected Conditions in NYSILL, and Effects of These on Filling in the Referral Libraries on Elapsed Time[a]


+.99
+.86
Filling at the State Library
+.36
+.08
Request Eligible
-.38
Academic Patrons
+.53
+.27
Filling at the Referral Libraries
+.06
-.57
-.10
(R = .52)
Requesting Library Public

Dependent Variable: Filling at NYSILL Referral Libraries


+.99
+.86
Filling at the State Library
+.74
+.08
Request Eligible
+.61
Academic Patrons
+.53
-.22
Fast Processing, Wherever Filled
+.13
-.57
(R = .68)
Requesting Library Public

Dependent Variable: Fast Processing, No Matter Where Filled

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a. Numbers in these diagrams derived by path analysis. See text for interpretation and references. Paths with a value of -.05 to +.05 have been eliminated from the diagram.

much stronger, and the small direct effects for academic status disappear altogether. This last result is of special interest, for it indicates that academic requests as such have nothing to do with slow speed. Rather, the important factor is that these requests are for relatively high-level materials, and thus receive eligible status. All such requests experience slower processing, whether they come from academicians or from others.

The coefficients in parentheses at the right of each diagram are multiple correlations for the strength of all these factors in explaining success in the use of referral libraries and in attaining speedy service. Both multiple correlations are fairly strong, indicating that these conditions are relatively well accounted for. In each case, of course, a major portion of this explanatory power comes from the State Library's role as a filter. Although the analysis has indicated that none of these variables assist us much in locating conditions which help to explain filling at the State Library, the very lack of results is consistent with the conventions under which NYSILL is supposed to operate. If the State Library is to function as a general-purpose backup facility for the entire state, then there should really be no particular associations between successful use of that library and such general indicators as the ones created here. In particular, the lack of a positive path between eligibility and filling at Albany underscores the need for a referral network; the State Library is no more or less able to fill these requests than any other requests, which is why NYSILL was created in the first place.

The foregoing analyses serve several useful purposes. First, they provide confirmation of earlier conclusions, and demonstrate that different methodological approaches have provided consistent interpretations of the NYSILL system. Second, they enable earlier conclusions to be carried a bit further, to allow for possible interactions among findings treated separately in previous chapters. Finally, they have enabled a single analysis to be made which takes the major findings of Chapters IV and V, and brings these together in a description of effects for several key conditions in the system as a whole. Throughout this analysis, a consistent finding has been that the formal conventions and operating procedures of NYSILL appear to be in line with actual experience. In terms of the questions raised at the beginning of this chapter, it has been found that the eligibility rule is indeed useful, and that patrons affiliated with non-public libraries, with academic statuses, or who simply submit requests which are deemed eligible, do, in fact, experience better success at referral libraries and do as well at the State Library as other kinds of patrons.

PART IV:

IMPROVEMENTS AND INNOVATIONS IN INTERLIBRARY LOAN SERVICES

> You can please some of
> the users all of the
> time, and all of the
> users some of the time,
> but...
>
> --Harold Wooster,
> "Machina Versatilis, A Modern Fable"
> (Library Journal, February 15, 1969)

Chapter VII

VARIATIONS ON NYSILL: REGIONAL NETWORKS AND DIRECT ACADEMIC SERVICE

Many of the difficulties experienced with NYSILL Phase I could be traced back to the basic nature of this system as a single general-purpose service for the entire state. NYSILL provided good service in 1967 for middle-level interlibrary loans. The majority of users were satisfied. At the same time, it was recognized that NYSILL's structure forced some materials to bypass local resources which might be able to provide faster service, and it also required high-level academic borrowing and lending in the state to accommodate itself to a service aimed at a much broader segment of the populace. The State Library responded to these problems by providing, in NYSILL Phase II, experimental programs which might make state-funded interlibrary loan more responsive to the needs and circumstances of different groups of patrons. First, as has been outlined in Chapter I, two regional interlibrary loan systems were established, one operated by the Western New York Library Resources Council at Buffalo and the other run by the Rochester Regional Research Library Council. Second, the larger academic libraries were permitted to borrow directly from NYSILL referral centers, with the same state reimbursement features extended to these resources that would have applied if NYSILL had been used. The present chapter reviews these programs.

THE REGIONAL INTERLIBRARY LOAN NETWORKS

As mentioned in Chapter I, the two regional networks differed in several respects from each other and from NYSILL. In particular, the Rochester-based system was decentralized in that requests were sent directly to different resource libraries by the requesting libraries; in the Buffalo-based system, operations were centralized and requests were telephoned into the 3R's Council headquarters, there to be routed to an appropriate resource. These distinctions affected many of the outcomes in these networks.

Table 7.1 shows sample volume, total volume as estimated by system personnel, and the discrepancies between these for both regional networks. At Buffalo, the 10% sample comprised 211 cases, which represented 2,110 cases covered by the data sent to Nelson Associates. Personnel at Buffalo counted 2,563 cases handled by the system. Of the extra 450 requests, data for some were known to have been lost. Others were sent directly to NYSILL without attempting to fill them locally. At Rochester, 164 requests were chosen for the sample, representing

Table 7.1

COMPARISON OF TEN PERCENT SAMPLE OF BUFFALO AND ROCHESTER REQUESTS WITH VOLUME RECORDS MAINTAINED BY EACH REGIONAL SYSTEM

	Buffalo	Rochester
Number of cases in 10% sample	211	164
. . . times 10	2,110	1,640
Number of requests counted by region	2,563	1,445
Net discrepancy	-447	+195
. . . divided by ten	- 45	+ 20*

*Rounded to the even digit.

1,640 items processed. System personnel counted only 1,445 requests but it seems very likely that this is an underestimation of actual volume. The discrepancy is actually larger than the figures indicate because again data from the separate study of NYSILL (cf. Table 5.1) show that the Rochester transmission site (the Pioneer Library System) submitted 91 cases in the NYSILL sample--75 more than would be expected on the basis of local system data alone. Obviously here, too, requests must have been submitted to NYSILL which bypassed the local system completely.

Although there were requests originated in the areas served by these networks which went directly to NYSILL, the data below deal only with those requests which were actually processed by these regions. The two networks show very high filling rates but these rates do not reflect cases which were sent directly to NYSILL. Such requests would have to be included to arrive at a real measure of the regional networks' absolute ability to serve their areas.

This consideration affects the overview of outcomes in these systems, shown in Table 7.2. At Buffalo, 74% of all cases processed were filled. The same data show that 13% of these cases, or 27 requests, were eventually referred to NYSILL. Data in Chapter V, however, indicated that the three transmission sites served by this regional network submitted a total of 139 of the requests in the NYSILL sample, or 112 more than would be expected on the basis of local system data alone. If these are added to the total volume for the Buffalo region, filling rates are reduced to 48% of all potential cases. It should be noted that this estimate is probably as biased against the Buffalo network as the earlier one is biased in favor of it, for most of these extra cases

Table 7.2

OVERVIEW OF OUTCOMES IN REGIONAL NETWORKS
OCTOBER TO DECEMBER 1968

Category	Buffalo	Rochester
Total number of requests in 10% sample	211	164
Local outcomes: percent		
. . . Filled*	74%	87%
. . . Not filled*	25	13
. . . Total	99	100
Additional outcomes: percent		
. . . Sent to NYSILL	13%	10%
. . . Filled in NYSILL (of all sent to NYSILL)*	78	76
. . . Filled in NYSILL (of all requests)*	8	8
Total percent filled*	83%	95%

*Excludes items pending, with unknown status, or sent directly to NYSILL.

were sent in to the State Library by the Nioga and Chautauqua-Cattaraugus library systems and might, in fact, have been filled locally had the regional service been tried first.

At Rochester, the sample shows that 87% of all requests processed locally were filled; adding in the excess of NYSILL referrals reduces this to 61% of the total potential volume. Again, it is likely that some cases sent directly to NYSILL might have, in fact, been filled locally if a local referral had been attempted. Overall, it is inescapable that both services do a good job of filling those items which they do receive, and even if the most pessimistic assumptions are made about the ability of these networks to handle all requests emanating in their areas, their filling rates are still as good or better than those of the State Library or of the area referral centers. The screening effects provided by these networks become obvious when the data on the use of NYSILL libraries by geographic region (Chapter V) are called to

Table 7.3

STATUS BY MONTH IN REGIONAL NETWORKS[a]

STATUS: Percent	BUFFALO				ROCHESTER			
	Month			Total	Month			Total
	Oct.	Nov.	Dec.		Oct.	Nov.	Dec.	
... Filled locally	73%	87%	62%	74%	94%	79%	91%	87%
... Total referred to NYSILL	13	9	17	13	6	17	4	10
... Not filled, not referred	13	3	20	12	-	3	4	3
Total	99%[b]	99%[b]	99%[b]	99%[b]	100%	99%[b]	99%[b]	100%

a Excludes cases pending, with unknown status, or sent directly to NYSILL.
b Does not total exactly 100%, due to rounding.

mind; Table 5.3 shows that requests from the upstate western area served by these two networks were the least likely to be filled by the State Library. This same screening effect is also evident in the high rates of success shown for items processed in the regions and then sent to NYSILL; despite the minimal use of the State Library, more than three-quarters of these cases were filled.

The remainder of this analysis deals only with those cases actually processed by the two local networks. Table 7.3 presents the general outcomes for these systems by month. No systematic patterns are apparent in these data. November was the best month for filling in the Buffalo-based network but was the worst month for filling in the Rochester-based system. The figures for the proportion of cases referred to NYSILL show the same kind of distribution; at Buffalo the fewest referrals came in November, while at Rochester this month accounted for the greatest proportion of referrals.

Characteristics of Regional Requests

Table 7.4 provides a distribution of requests in each system for different patron statuses and the percent filled for each. In both systems, non-academic patrons submit the most requests. In Rochester, student requests are a little less common than they are at Buffalo, both proportionately and in terms of absolute numbers. At Buffalo these student requests are slightly more likely to be filled than are others; otherwise there are no significant differences in filling in these data.

Table 7.4

PERCENT OF REQUESTS FILLED IN REGIONAL NETWORKS, BY PATRON STATUS

PATRON STATUS	BUFFALO		ROCHESTER	
	Number of Requests in 10% Sample	% Filled*	Number of Requests in 10% Sample	% Filled*
Known: Faculty	42	74%	41	85%
Student	43	79	27	84
Other	67	70	74	85
Total	152	74	142	85
Unknown patron status: Total	59	74%	22	100%
Total	211	74%	164	87%

*Excludes cases where final status is unknown, or which were sent directly to NYSILL.

Turning to subject matter of the requests, the data in Table 7.5 show that very good success rates were achieved for some subject classes. These percentages are based on small numbers of cases, and must be regarded with considerable caution; nonetheless the trends are clear. At the Buffalo-based network, filling rates exceeded 80% of all requests in the physical sciences, economics, psychology, classics, history (both American and other), business, engineering, and fiction. At Rochester, the only subject categories in which comparable filling rates were not achieved were the biological sciences, sociology, philosophy and religion, medicine, and the miscellaneous "generalities" class. Of course, consideration of requests sent directly to NYSILL would change these outcomes, but even so the results are impressive. Nowhere in either system are filling rates low enough to suggest that all such items might bypass local resources altogether. For example, even if requests for science materials were likely to be sent directly to Albany, those which remained to be processed still stood a very good chance of being filled.

Table 7.5

PERCENT OF REQUESTS FILLED IN REGIONAL NETWORKS, BY SELECTED SUBJECT CATEGORIES[a]

SUBJECT CATEGORY	BUFFALO		ROCHESTER	
	Number of Requests in 10% Sample	% Filled	Number of Requests in 10% Sample	% Filled
Natural Sciences:				
Physical Sciences and Mathematics	18	83%	29	93%
Biological Sciences (including Anthropology)	12	50	21	74
Social Sciences:				
Economics	8	88[b]	13	92
Geography	4	67[b]	1	100[b]
Political Science	9	78[b]	8	88[b]
Sociology, Social Welfare	13	45	6	60[b]
Psychology	14	86	6	80[b]
Humanities:				
Classics, plus English Language and Literature	17	88	10	100
Foreign Languages and Literature	3	67[b]	3	100[b]
Philosophy and Religion	10	70	3	67[b]
Fine Arts	6	67[b]	3	100[b]
American History	6	83[b]	4	100[b]
Other History	5	80[b]	2	100[b]
Professions:				
Business, Public Administration	1	100[b]	10	90
Engineering, Technology	9	88[b]	18	94
Education	13	85	5	80[b]
Medicine	17	76	17	75
Law	5	40[b]	2	100[b]
Other:				
Fiction	6	83[b]	1	100[b]
Biography	5	60[b]	1	100[b]
Popular Nonfiction	0	-	0	-
Miscellaneous; Generalities	6	67[b]	1	0[b]
Subject Unknown	24	47	0	-
Total - All Cases	211	74%	164	87%

a Excludes cases with unknown final status, or which were sent directly to NYSILL.

b Not reliable; too few cases (less than ten).

Despite the fact that many items in these areas bypassed the local networks, both Buffalo and Rochester handled requests of a surprisingly high level. An analysis of titles, authors, and citations showed that, in Buffalo, the material supplied was generally of a high intellectual level. About half of all filled requests were for materials published since 1960; of these, almost three-quarters were for serials. Of 92 items supplied by the Buffalo network which were inspected for this study, at least ten could be considered to be highly technical or rare materials. Two or three were current (1966-68) issues of popular periodicals (e.g., Redbook or Time). Except for these and the ten relatively high-level items, these materials were ones that a strong 3R's region should be expected to fill. For example, requests for such materials--all of which were supplied by the Buffalo network--as recent issues of Psychology Today, the Journal of Pediatrics, American Quarterly, Commonweal, and recent publications from Wiley, Meredith, and McGraw-Hill, although certainly valid requests, should not generally be directed to large research libraries.

At Rochester, about half of the items which the system supplied were published since 1960; again about three-quarters of these were for serials. At least seven of a total of 89 filled requests analyzed were for highly specialized or rare materials, and at least another ten could be classed as falling into a particularly specialized level. No requests filled by Rochester could be considered to be of too low a level for such a service. The 17 or more specialized items were all of a caliber that could justify referral to NYSILL subject centers; the rest of the filled requests were also of an exceptionally high level and might not have been expected to be filled by a 3R's region.

For requests not filled by these networks, 20 were analyzed from Buffalo and another 14 from Rochester. The Buffalo cases included a 1908 Russian journal and a 1927 American monograph. At least seven, or more than a third, were of such a level or unusualness that even a strong 3R's region with well balanced collections should not have been expected to hold them. On the other hand, at least four could have been expected to be available: a 1968 issue of Nation, and recent publications from Random House, Little, and Holt. The remaining unfilled requests from Buffalo were items which might or might not be found in any good collection, and which could justifiably be requested from NYSILL: for example, Jewish Speculator, a 1965 issue of Refractories, a 1949 publication of the Educational Testing Service.

Requests not filled in Rochester included two foreign publications in English, a translation of an Italian work, and an 1843 French language publication possibly published in Russia. Only four items, or 29%, could have possibly been expected to be filled in the region: a 1968 monograph of a British-American publisher, a 1962 issue of a library science journal, and 1967 issues of fairly common subject journals. The remaining items are of a level that could be sent to NYSILL subject centers: for example, a 1933 issue of Emu, a 1893 publication of L'Academie Imperiale des Sciences.

The libraries submitting requests to these services are classified in Table 7.6. It is immediately apparent that both regional networks differ from NYSILL and from statewide patterns in the kinds of libraries which make use of these services; the two systems also differ from each other. At Buffalo, the academic library use of the system is considerably greater than is experienced either statewide or in NYSILL alone. At Rochester, academic use is even more pronounced, and special libraries account for more than a third of all requests. This situation reflects the unusual economic makeup of the Rochester region, which between the Xerox Corporation and Eastman Kodak probably possesses far more than the usual share of libraries serving research-oriented businesses.A list of the libraries using these systems is given by Exhibits 7.1 and 7.2.

Exhibit 7.1

A PARTIAL LIST OF LIBRARIES USING
THE WESTERN NEW YORK REGIONAL INTERLIBRARY LOAN NETWORK

Library	Number of Requests in 10% Sample
Buffalo and Erie County Library System, and Public Library Affiliates	8
Chautauqua-Cattaraugus Library System, and Public Library Affiliates	64
Nioga Library System, and Public Library Affiliates	45
Academic Libraries:	
Canisius College	14
Genesee Community College	2
Immaculata College	8
Niagara County Community College	8
Rosary Hill Seminary	4
SUNY: University at Buffalo	22
College at Buffalo	11
Special Libraries:	
Buffalo General Hospital	10
Carborundum Corporation	5
FMC Corporation	2
National Lead Company	6
Union Carbide Company	2
Total	211

Exhibit 7.2

A PARTIAL LIST OF LIBRARIES USING THE ROCHESTER REGIONAL INTERLIBRARY LOAN NETWORK

Library	Number of Requests in 10% Sample
Rochester Public Library and Branches	17
Academic Libraries:	
Hobart and Wm. Smith Colleges	5
Monroe County Community College	2
Nazareth College	3
Rochester Institute of Technology	7
St. John Fisher College	11
SUNY: College at Brockport	14
College at Geneseo	27
University of Rochester	5
Special Libraries:	
Bausch and Lomb Co.	2
Eastman Kodak Co. (all libraries)	26
General Dynamics Technical Library	4
Highland Hospital Library	2
Strasenburgh Laboratories Research Library	4
Xerox Corporation (all libraries)	27
Others: One request each	8
Total	164

Table 7.6

NUMBERS OF REQUESTS IN REGIONAL NETWORKS, BY TYPE AND SIZE OF ORIGINATING LIBRARY

LIBRARY TYPE	Library Size: Number of Volumes[a] for Originating Libraries at:									
	BUFFALO[b]					ROCHESTER[c]				
	Less Than 100,000	100,000-499,000	500,000-999,000	1,000,000 or More	Total	Less Than 100,000	100,000-499,000	500,000-999,000	1,000,000 or More	Total
Public	84	-	-[e]	-	84	1	-	-[e]	16	17
Academic	25	27	22	-	74	37	33	-	5	75
Other:[d]										
Law	-				-	-				-
Medical	11				11	4				4
Special	-				-	49				49
Total	169				169	145				145

a Size coded in thousands of volumes.
b Excludes 42 cases with unknown originating library characteristics.
c Excludes 19 cases with unknown originating library characteristics.
d Size distinctions ignored.
e No such libraries in this region.

Table 7.7

PERCENT OF REQUESTS FILLED IN REGIONAL NETWORKS, BY SELECTED CHARACTERISTICS OF ORIGINATING LIBRARIES

Originating Library Characteristics	BUFFALO		ROCHESTER	
	Number of Requests in 10% Sample[a]	% Filled[b]	Number of Requests in 10% Sample[c]	% Filled[b]
Type: Public	84	74%	17	94%
Academic	74	74	15	83
Medical	11	73	4	75
Special	0	-	49	85
Size: Less than 100,000 volumes	120	77%	91	84%
100,000-499,000 volumes	27	48	33	90
500,000-999,000 volumes	22	91	0	-
1,000,000 or more volumes	0	-	21	81
All Libraries	211	74%	164	87%

a Forty-two requests could not be coded for type and size for Buffalo.
b Cases with unknown status are excluded, as well as those sent directly to NYSILL and not processed in regional networks.
c Nineteen requests could not be coded for type and size for Rochester.

Outcomes by these characteristics of libraries are shown in Table 7.7. There are no major distinctions for filling rates in these data except the relatively low success experienced by libraries in the small-medium size group at Buffalo. Reference back to Table 7.6 will show that these are all requests from academic institutions; this would suggest that the requests are likely to be of a high enough level to require the use of NYSILL resources.

Three other descriptors of requests are reviewed in Table 7.8. Both regional networks receive requests for predominately English-language materials. Both are much less likely to fill requests for materials not in English. Requests for nonbook materials are more common than

Table 7.8

PERCENT OF REQUESTS FILLED IN REGIONAL NETWORKS, BY SELECTED CHARACTERISTICS OF THE REQUESTS: LANGUAGE, MEDIA AND VERIFICATION

CHARACTERISTICS		BUFFALO		ROCHESTER	
		Number of Requests in 10% Sample	% Filled*	Number of Requests in 10% Sample	% Filled*
Language:	English	163	79%	152	89%
	Other	12	42	11	55
	Unknown	36	44	1	100
Media:	Book	80	70%	57	82%
	Nonbook	95	82	107	89
	Unknown	36	41	0	-
Verification:	Yes	149	75%	119	84%
	No	26	85	44	93
	Unknown	36	44	1	100
All Cases		211	74%	164	87%

*Cases with unknown final status are excluded, as well as those sent directly to NYSILL and not processed in regional networks.

requests for books in both systems; at Rochester this is especially pronounced. Rochester does slightly better in filling both kinds of requests. In both systems most requests are verified as to the accuracy of bibliographic citations; however, items not verified are the most likely to be filled. Probably these are the lower-level requests, which would account for the difference in filling rates.

Table 7.9

FIRST AND SECOND REFERRALS IN REGIONAL NETWORKS, BY RESOURCE LIBRARIES

REFERRALS	BUFFALO RESOURCE LIBRARIES				ROCHESTER RESOURCE LIBRARIES			
	BECL	SUNY-Buffalo	Others[a]	Total	RPL	University of Rochester	Want List[c]	Total
First	157	35	-	192	44	108	2	154
Second	1	33	1	35	6[d]	15	5[d]	26
Total	158	68	1	227[b]	50	123	7	180[e]

[a] One request in 10% sample sent to SUNY-College at Buffalo.

[b] Excludes 19 cases where first referral library was unknown, and one case where second referral library was unknown. No third referrals (or referrals to other libraries) were sampled.

[c] Includes requests sent to SUNY-Brockport, Rochester Institute of Technology, Monroe County Community College, and Eastman Kodak Co.

[d] Includes one third referral.

[e] Excludes five cases where first referral library was unknown, two cases where second referral library was unknown, and one case where third referral library was unknown.

Processing Requests in the Regional Networks

Table 7.9 shows the total number of requests sent to each resource library used by these systems and which requests were first and second (or later) referrals. In Buffalo, as was mentioned above, the most heavily used resource is the Buffalo and Erie County Library. Almost all second referrals, as well as a number of first referrals, go to the Lockwood Library of SUNY-Buffalo, however. Although no formal system exists at Buffalo for the use of other libraries, a few requests were sent to these by network personnel when circumstances seemed to warrant; one such request was picked up in the sample, sent to the SUNY College at Buffalo.

The pattern of usage at Rochester is completely different. Here the University received more than twice as many requests as were sent to the Rochester Public Library. Both institutions had roughly the same mixture of first and second referrals. In addition, a want list was used to attempt to locate materials not at either of these libraries, resulting in cases in the sample for requests sent to the SUNY College at Brockport, Rochester Institute of Technology, Eastman Kodak libraries, and Monroe County Community College. Two of these cases are listed as first referrals; this seems unlikely and could reflect missing data on intervening libraries.

The question which comes to mind is the extent to which these different patterns of use reflect different local needs or simply the lack of centralized control over routing at Rochester. If large numbers of low-level items had been received at the University of Rochester, or if the filling rate there had been very low, one could conclude that in this system resources might be misused. However, neither of these conditions applies, as was shown by both these data and interviews conducted for the study. Instead, real differences in local interlibrary loan needs seem to be the more plausible explanation for variations in the use of public libraries or universities in the two regional systems.

Outcomes for these resource libraries are depicted in Table 7.10. At the Buffalo-based system, the Buffalo and Erie County Library fills 66% of all requests received; SUNY-Buffalo fills 57%. Twelve percent of all referrals are owned by one or the other library but not on the shelf. At Rochester, the public library fills 50% of its referrals; most of the rest are simply not owned. The University, on the other hand, fills 83% of all requests sent to it. When it is recalled that most requests in this system are sent to the University, the dependence of the Rochester network on this one resource is underscored. Table 7.11 shows that more than three-quarters of all items supplied by the Rochester network came from the University. Much the same result applies to the Buffalo network, except here the major resource is the public library. These data show that local systems such as these will reflect wide variations in local demands. In particular, the data seem to indicate that strong university resources are not necessarily as crucial for some areas as they are for others.

Table 7.10

FINAL STATUS OF REQUESTS SENT TO REGIONAL NETWORKS, AT EACH REFERRAL LIBRARY[a]

FINAL STATUS: Percent...	BUFFALO REFERRAL LIBRARIES				ROCHESTER REFERRAL LIBRARIES			
	BECL	SUNY-Buffalo	Others[b]	Total	RPL	University of Rochester	Want List[d]	Total
... Filled	66%	57%	-	63%	50%	83%	86%	74%
... Not on shelf	13	10	-	12	-	4	-	3
... Will not send	1	1	-	1	2	1	14	2
... Not in library	19	28	-	22	48	12	-	21
... Bad citation	1	3	-	1	-	-	-	-
Total	100%	99%[c]	-	99%[c]	100%	100%	100%	100%

[a] Excludes cases where either referral libraries or final status were unknown.
[b] One request in 10% sample sent to SUNY-College at Buffalo; final status unknown.
[c] Does not total exactly 100%, due to rounding.
[d] Includes requests sent to SUNY-Brockport, Rochester Institute of Technology, Monroe County Community College and Eastman Kodak Co.

Table 7.11

SOURCES OF FILLED REQUESTS, REGIONAL NETWORKS

Resource Library	Buffalo	Rochester
Buffalo and Erie County Public Library	72%	-
SUNY-Buffalo	28	-
Other Libraries in Buffalo Region[a]	0	-
Rochester Public Library	-	20%
University of Rochester	-	76
Want List in Rochester system[b]	-	5
Total	100%	101%[c]

a Includes request sent to SUNY-College at Buffalo.

b Includes requests sent to SUNY-Brockport, Rochester Institute of Technology, Monroe Community College, and Eastman Kodak Co.

c Does not total exactly 100%, due to rounding.

The elapsed time data for both systems are given in Table 7.12; as in Chapter V, these numbers have been transferred to a flow chart to assist their interpretation (Figure 7.1). Both systems take approximately ten days, on the average, to process and fill a loan. As in NYSILL, a large portion of this time is taken up by delivery or by delays in getting a request to the system. There are sharp differences between the two networks, however, when the overall times are broken down by separate processing steps. At Buffalo, the use of the telephone to initiate a request results in a major reduction in the time consumed to initiate handling: only .14 of a day, compared to 3.88 days at Rochester. Interviews with personnel at the Buffalo system established that little, if anything, is added by the written confirming requests which follow the telephone inquiries; in fact, consideration is presently being given to the elimination of these. If a similar procedure could be used with NYSILL request transmission sites, similar savings in time should result. However, not all of these will be able to handle such a work load without assistance, either to provide additional telephone lines, additional personnel, or both.[1] Use of the telephone would present problems for Rochester, since the lack of a centralized processing and switching center means that the burden of converting phone requests to a written order would have to fall on the resource libraries.

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[1] A network has recently been initiated in North Carolina which makes extensive use of direct communication by telephone with patrons. See "WATS Happening in North Carolina," Library Journal, March 1, 1969, pp. 945-147.

Table 7.12

ELAPSED TIMES IN THE REGIONAL NETWORKS (TEN PERCENT SAMPLE; AVERAGE NUMBER OF DAYS ABOVE DIAGONAL, NUMBER OF CASES USED BELOW DIAGONAL)

Request at...	Originating Library	First Local Referral Library	Second Local Referral Library	Sent	Received
Western New York ILL System:					
Originating Library	–	.14[a]	–[b]	6.25[c]	9.85[c]
First Local Library	189[a]	–	6.03[a]	6.48[c]	–[b]
Second Local Library	–[b]	33[a]	–	3.21[c]	–[b]
Sent	133[c]	133[c]	14[c]	–	2.98[c]
Received	89[c]	–[b]	–[b]	88[a]	–
Rochester Regional ILL System:					
Originating Library	–	3.88[a]	–[b]	6.83[c]	–[d]
First Local Library	95[a]	–	1.62[a]	3.30[c]	–[d]
Second Local Library	–[b]	13[a]	–	12.77[c,e]	–[d]
Sent	125[c]	60[c]	13[c]	–	–[d]
Received	–[d]	–[d]	–[d]	–[d]	–

[a] Based on all cases, whether sent to NYSILL or not (NA's on time excluded).

[b] Not computed.

[c] Excludes cases sent to NYSILL, as well as all those NA on time.

[d] Not recorded at Rochester. Interviews indicate that system will provide 24-hour delivery within Monroe County, 2-3 day service to outlying areas.

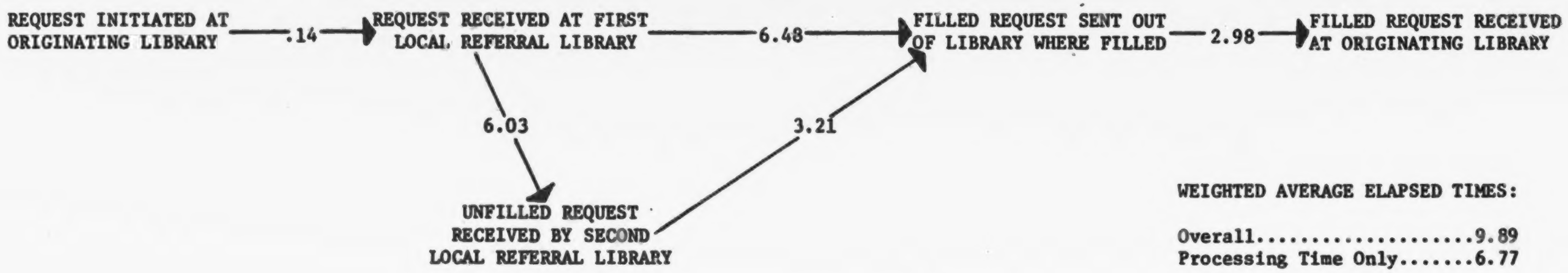
[e] Includes cases referred a third time via want list.

Actual processing time is somewhat faster at Rochester than it is at Buffalo. The figure of 12.77 days for time from second referrals to receipt is misleading, because it includes items sent via the want list to third referral libraries. Even with these included, overall processing time is 5.27 days at Rochester compared to 6.77 days at Buffalo. Rochester also has a faster delivery service, as might be expected since it has a smaller area to serve. No times were available in the data for receipt of requests at Rochester, but interviews confirmed the system personnel's expectations that 24-hour service would be achieved in Monroe County, where most of the libraries using this service are located, and two to three-day service could be expected elsewhere. The figure of 1.50 days

Figure 7.1. Average Elapsed Times to Process Requests in the Regional Interlibrary Loan Networks

(10 percent sample; all figures are mean number of days consumed)

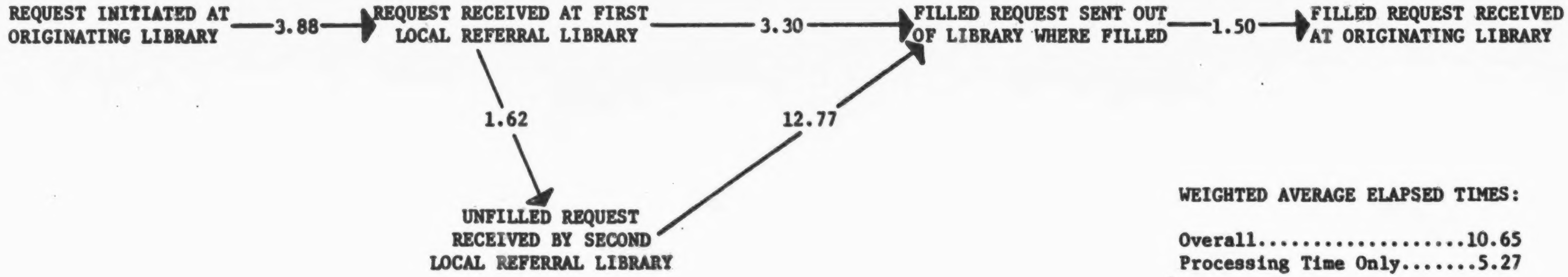
Buffalo: the Western New York Library Resources Council regional system


REQUEST INITIATED AT ORIGINATING LIBRARY
.14
REQUEST RECEIVED AT FIRST LOCAL REFERRAL LIBRARY
6.48
FILLED REQUEST SENT OUT OF LIBRARY WHERE FILLED
2.98
FILLED REQUEST RECEIVED AT ORIGINATING LIBRARY
6.03
UNFILLED REQUEST RECEIVED BY SECOND LOCAL REFERRAL LIBRARY
3.21

WEIGHTED AVERAGE ELAPSED TIMES:

Overall....................9.89
Processing Time Only.......6.77

Rochester: the Rochester Regional Research Library Council system


REQUEST INITIATED AT ORIGINATING LIBRARY
3.88
REQUEST RECEIVED AT FIRST LOCAL REFERRAL LIBRARY
3.30
FILLED REQUEST SENT OUT OF LIBRARY WHERE FILLED
1.50
FILLED REQUEST RECEIVED AT ORIGINATING LIBRARY
1.62
UNFILLED REQUEST RECEIVED BY SECOND LOCAL REFERRAL LIBRARY
12.77

WEIGHTED AVERAGE ELAPSED TIMES:

Overall...................10.65
Processing Time Only.......5.27

Table 7.13

ESTIMATED COSTS TO THE STATE LIBRARY[a] OF FILLING REQUESTS IN REGIONAL SYSTEMS OCTOBER-DECEMBER 1968

Library	Payments from the State Library			Costs per Unit Filled[d]		
	Unit Fees[b]	Participation Grants[c]	Total	Unit Fees Only	Grants Only	Total
SUNY-Buffalo	$1,456.00	$ 833.33	$2,289.33	$3.75	$2.15	$5.90
University of Rochester	3,272.00	833.33	4,105.33	3.20	.82	4.02
Total	$4,728.00	$1,666.66	$6,394.66	$3.36	$1.18	$4.54

a Excludes grant of $10,000 to the Buffalo and Erie County Public Library for November 1968 to March 1969 in recognition of the fact that this institution is now performing services for two other library systems: Chautauqua-Cattaraugus and Nioga. Also excludes unit payment arrangement worked out between the Monroe County Library System and the Rochester Public Library, wherein the latter is paid 75¢ for each request handled.

b From survey data, weighted by a factor of 10 to reapproximate actual volume. Both libraries were reimbursed at the rate of $1.00 for each request handled, $2.00 for each item filled.

c Prorated to cover only October-December 1968.

d Costs divided by total items supplied (survey data x 10).

in the chart reflects these factors and may be considered to be a reliable estimate. At Buffalo, the time for delivery of almost three days reflects actual data on the receipt of filled requests and agrees with the impression of personnel at that system that their delivery service would not be able to achieve 24-hour service.

Costs for supporting the special resource libraries in these networks are shown in Table 7.13. Both SUNY-Buffalo and the University of Rochester compare very favorably with NYSILL referral centers because of the low unit fees (both are reimbursed at the same rate applied to NYSILL area centers) and low participation grants, and because of the relatively heavy volume of use. It costs the state a little under $6.00 for each item provided by SUNY-Buffalo, slightly more than $4.00 for each one supplied by the University of Rochester. Despite the substantial reduction in costs in NYSILL, no referral library in that system has such low unit costs.

These are not the only costs sustained in operating these systems, of course. The Buffalo and Erie County Library has been given a grant by the state in recognition of the fact that the regional network requires that library to assume some of the services formerly performed by the Chautauqua-Cattaraugus and Nioga Library Systems. This grant, prorated at $5,000 to cover the period of this study, provides roughly $2.50 per request received, which seems quite generous, especially when it is noted that some of these requests would have been handled by this library even if the system had not been created. At Rochester, the public library is reimbursed for each request handled at the rate of 75¢ each. During the period of this study this would add about $375 to costs. These funds were provided by the 3R's Council, rather than directly by a grant from the State Library. In NYSILL itself, of course, unit costs for referrals are far from the only financial considerations in the system, and these kinds of additional costs do not represent unique factors for the regional networks alone.

Summary: The Future of Regionalism

In all, both of these regional networks must be judged to be quite successful. Each fills substantial numbers of the items received; elapsed times in each network are much shorter than times which would result if these items were sent on to NYSILL; costs are moderate; and the level of materials supplied is surprisingly high. It is especially interesting to find that both networks seem worthwhile despite major differences in operating procedures, kinds of users serviced, and kinds of materials supplied. Clearly there is no single "right" way to set up one of these systems; the experience at Buffalo and Rochester shows that the only requirement is to take careful account of local needs, as both of these systems evidently have done.

It is recommended that both of these systems be permanently funded, subject to a careful review of administrative costs. The latter will be needed to consider overhead costs which could be expected to be absorbed locally by an experiment but which will need some financial support for a permanent service.

What about the use of such systems elsewhere in the state? The analysis of both statewide patterns of interlibrary loan and of NYSILL indicates that each region will vary in its need for such services. Certainly it is not likely that another area can be found which will have both the high-level needs evidenced by Rochester and the local resources to handle those needs, nor do other 3R's Councils generally have access to a public library as strong as the one at Buffalo. The speed and convenience of local service is such that it seems sensible that the state should seek to provide support for additional regional systems in the long run. This last qualification, however, cannot be overemphasized, and at this writing no other regions in the state seem to meet the requirements of volume, known kinds of patron needs, and resources to match those needs.

ACADEMIC INTERLIBRARY LOANS AND NYSILL: THE EXPERIMENT IN DIRECT BORROWING

Interviews conducted for earlier studies of NYSILL showed clearly that many colleges and universities had substantial reservations about this system. It was too slow for their purposes, they said, and forced academic librarians to seek alternative resources. Direct recourse to libraries participating in NYSILL was not feasible because loans would have to come through the system in order to be reimbursed by the state. To meet these problems, the state decided to permit large academic libraries to borrow directly from NYSILL referral centers, with these loans funded just as they would be if the NYSILL network had been used. To evaluate this new feature of the program, the following questions had to be answered: first, were success rates better than those obtained with NYSILL? Second, was time consumption improved by going direct to the resource? Third, could the State Library have filled some of these loans, thereby relieving loads on referral centers and reducing costs?

Through a combination of data sources, an analysis of these issues was made, the results of which are summarized below. Two sources of volume estimates were available, the first being copies of the actual requests and the second being a tally of loans reported to the State Library. Table 7.14 reports both of these, the latter divided by months to see if any major shifts took place over the monitoring period. Both counts agreed fairly closely except in the case of requests from the Lockwood Library at SUNY-Buffalo, where less than a quarter of the expected number of actual requests were received. Allowing for some anticipation on the part of the State Library for cases which failed to materialize, and also allowing for a failure to notify the State Library of all loans, actual volume for these direct requests is probably somewhere between the two estimates given in the table. The changes across the three months do not present a consistent pattern; requests from Cornell and Syracuse increased over the period where those from Columbia decreased.

When the State Library received copies of the request, an attempt was made to search the item to see if it was held in the collections at Albany. Table 7.15 shows that 217 of these requests were subjected to such a search, or about 46% of the total. Of these, more than a quarter were held by the State Library. If the most pessimistic assumption possible is made--that all unsearched requests were not held --this would still show that more than 10% of all direct requests are held at Albany. Of the several libraries making use of the direct borrowing option, clearly the Health Sciences Library at SUNY-Buffalo and Syracuse University are the most likely to use referral centers when the State Library would have sufficed; in both cases, that institution held a third of all items requested.

Table 7.14

VOLUME OF LOANS SUBMITTED DIRECTLY TO NYSILL REFERRAL CENTERS, BY REQUESTING LIBRARY

Originating Library	State Library Tally				Total Actual Copies of Requests Counted
	October	November	December	Total	
SUNY-Buffalo:					
Lockwood Library	96	75	90	261	80
Health Science Library	98	72	95	265	218
University of Rochester	16	42	36	94	90
Syracuse University	9	15	34	58	42
Cornell University	3	13	18	34	19
Columbia University	28	5	1	34	11
New York University	-	4	3	7	7
Columbia Medical Center	1	1	1	3	3
Teachers College	2	-	-	2	2
New York Public Library	-	-	-	-	1
Total	253	227	278	758	473

Table 7.15

NUMBER OF DIRECT REQUESTS OWNED BY THE STATE LIBRARY, BY REQUESTING LIBRARIES

Originating Library	Searched at the State Library			Not Searched	Total
	Held	Not Held	Total		
SUNY-Buffalo:					
Lockwood Library	9	52	61	19	80
Health Science Library	36	72	108	110	218
University of Rochester	-	-	-	90	90
Syracuse University	9	19	28	14	42
Cornell University	1	18	19	-	19
Columbia University	1	-	1	10	11
New York University	-	-	-	7	7
Columbia Medical Center	-	-	-	3	3
Teachers College	-	-	-	2	2
New York Public Library	-	-	-	1	1
Total	56	161	217	256	473

Table 7.16

NUMBERS OF DIRECT REQUESTS RECEIVED AT NYSILL RESOURCE LIBRARIES, BY ORIGINATING LIBRARIES

Originating Libraries	Resource Libraries										Total
	Cornell University	Columbia University	New York University	Teachers College	New York Public Library	Academy of Medicine	American Museum	Brooklyn Public Library	Buffalo & Erie Library	Union Theological Seminary	
SUNY-Buffalo:											
Lockwood Library	55	14	3	2	3	-	-	1	-	1	80
Health Sciences Library	85	9	-	-	32	75	17	-	-	-	218
University of Rochester	48	36	1	-	-	4	-	1	-	-	90
Syracuse University	35	5	-	-	-	-	1	-	1	-	42
Cornell University	-	14	4	-	-	-	-	-	-	-	18
Columbia University	9	-	1	-	-	-	-	1	-	-	11
New York University	4	3	-	-	-	-	-	-	-	-	7
Columbia Medical Center	3	-	-	-	-	-	-	-	-	-	3
Teachers College	2	-	-	-	-	-	-	-	-	-	2
New York Public Library	1	-	-	-	-	-	-	-	-	-	1
Total	242	81	9	2	35	79	19	3	1	1	472[a]

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[a] Excludes one request sent to the Lockwood Library at SUNY-Buffalo: not a NYSILL referral library.

Which libraries used which resources? The most heavily used referral center for direct requests was Cornell University, which received more than half of all items on which outcomes were known (Table 7.16). This load came primarily from those upstate academic libraries--SUNY-Buffalo, the University of Rochester, and Syracuse University--which have traditionally depended on Cornell for a goodly portion of their interlibrary loan service. Cornell also received almost all of the loans initiated by other libraries using this option. The next most heavily used libraries were Columbia University (81 requests) and the New York Academy of Medicine (79 requests). The New York Public Library Research Libraries received 35 requests; the only other referral center to receive more than a few items was the American Museum of Natural History.

Table 7.17 shows the success rates at each library which received direct requests. Overall, 37 requests were filled which could have been also handled by the State Library. These cases, constituting over 10% of all requests for which a final status is known, represent the extent to which the direct service provided no advantages other than speed of service. One hundred ninety-three items were filled by the referral centers which the State Library did not hold (including all those not searched). These requests, 58% of the total, measure the extent to which the direct service provided materials which the State Library could not have supplied even if NYSILL had been used. Of the 100 requests which were known to be unfilled, ten were held by the State Library; to this extent, the use of the direct option actually reduced the originating library's chances of success. The remaining 90 cases were not, apparently, available at either the State Library or at the library to which they were actually sent.

Overall, the average elapsed time between origination of a request and the time it was sent out of the resource library was 7.6 days. In comparison, the analogous figure for referred NYSILL cases is 19.48 days. The advantage in speed of the direct service is obvious, but it must be pointed out that this is not a wholly fair comparison. The data above showed that the State Library could have provided some items. For such cases the NYSILL time lapse would be much shorter: 9.15 days, or the time consumed to reach the State Library plus processing time at the State Library. Furthermore, since all of the institutions using this service can and do bypass other request transmission sites, the preprocessing time is probably overstated, and in general, it is probably safe to say that the State Library could have given just as fast service as the resource libraries for any requests which it would have been able to fill.

In addition, the detailed data for each resource library in Table 7.17 show that some institutions are able to handle direct requests more quickly than others. In particular, the Academy of Medicine and the New York Public Library processed the items they received relatively quickly, while Columbia and Cornell were relatively slow. Of the libraries which received significant numbers of requests, Cornell had the

4

Table 7.17

DIRECT REQUESTS SENT TO NYSILL REFERRAL LIBRARIES: PROCESSING TIME, STATUS, AND OVERLAP WITH THE COLLECTIONS OF THE NEW YORK STATE LIBRARY (OCTOBER--DECEMBER, 1968)[a]

Library	Total Elapsed Processing Time, in Days	Number of Requests...				Total With a Known Final Status	Status Unknown	Total
		Filled		Not Filled				
		Held at NYSL	Not Held[b]	Held at NYSL	Not Held[b]			
Cornell University	8.8	21	113	3	44	181	61	242
Columbia University	10.8	1	24	-	14	39	42	81
New York University	2.0	-	1	-	2	3	6	9
Teachers College	---	-	-	-	-	-	2	2
New York Public Library	1.9	6	11	7	4	28	7	35
Academy of Medicine	4.6	5	40	-	19	64	15	79
American Museum of Natural History	7.0	4	3	-	6	13	6	19
Brooklyn Public Library	---	-	-	-	-	-	3	3
Buffalo & Erie Public Library	---	-	-	-	1	1	-	1
Union Theological Seminary	---	-	-	-	-	-	1	1
Total: All Libraries	7.6	37	192	10	90	329	143	472[c]

[a] "Processing Time" includes all handling from the day request was made until it was reported sent. Time for NYU is based on only one case and is not significant.

[b] Includes requests not searched at all.

[c] Excludes one request sent to SUNY-Buffalo (not a NYSILL referral library).

highest filling rate (74% of all known cases),[2] followed by the Academy of Medicine (70%), Columbia University (64%), The New York Public Library (61%), and the Museum of Natural History (54%). Interviews at referral libraries indicated that processing these direct requests presented no special problems, although at least one resource institution noted the relatively low level of items received from the Health Sciences Library.

Finally, Table 7.18 measures the usefulness of the direct option to each of the libraries which made use of it, in terms of time to fill the requests submitted (regardless of which library they were sent to) and the portion of all requests filled, not owned, or not available for other reasons. Again restricting interpretations to those institutions submitting significant numbers of items, the University of Rochester obtained the best rate of filling (79%). Its requests took a little longer than most to process. The Health Sciences Library at SUNY-Buffalo and Cornell University also had good rates of success, but elapsed times varied from only 5.4 days for HSL requests to 13.3 days for Cornell requests. This is related to Cornell's relatively heavy use of Columbia University, which was somewhat slower than most resource institutions, where in the case of the Health Sciences Library, items were sent to a variety of places.

With these data in mind, the direct service has been assessed as follows. Volume is not especially great. The numbers reported in these tables are not based on samples but on all available cases (although certainly missing data exist; this is not a perfect enumeration). If the overall volume is taken as 758--the upper estimate based on the State Library's control sheets, rather than on a count of actual requests--then state-funded academic interlibrary loan still went predominately through the regular NYSILL channels, which treated approximately 5,600 items from academic libraries during the same three-month period (cf. Table 4.15). However, for these particular academic libraries, the direct service is quite important: they do not tend to use regular NYSILL services. The academic requests channeled through the State Library tend to come from SUNY-Albany, Union College, and other institutions in eastern upstate New York.

The filling rates for direct requests are about the same as success rates for academic items directed through the State Library. Since the direct loans are likely to request materials of a relatively high level, it is concluded that success rates with direct loans are quite respectable.

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[2] Calculated from the numbers in the table as follows: the total filled, whether held at the State Library or not, over the total on which a final status is known.

Table 7.18

FINAL STATUS AND ELAPSED TIMES FOR DIRECT REQUESTS, BY ORIGINATING LIBRARIES[a]

Originating Library	Total Elapsed Processing Time, in Days	Final Status: Percent...[b]				
		Filled	Not in Library	Not on Shelf	Will not Send	Total[c]
SUNY-Buffalo:						
Lockwood Library	10.3	62%	8%	11%	19%	100%
Health Sciences Library	5.4	70	17	10	2	99
University of Rochester	9.8	79	7	8	5	99
Syracuse University	10.9	65	4	21	9	99
Cornell University	13.3	69	15	8	8	100
Columbia University	13.0	60	40	-	-	100
New York University	8.5	33	17	33	17	100
Columbia Medical Center	10.0	100	-	-	-	100
Teachers College	13.0	50	-	-	50	100
New York Public Library	----	-	-	-	-	-
Total	7.6	70%	14%	11%	5%	100%

a Elapsed time includes handling from day request was originated to day filled. For volume of cases, see Table 7.14.
b Excludes cases with unknown final status.
c May not add to 100%, due to rounding.

Finally, elapsed times indicate some real advantages for these universities in using the direct option. Probably at least a week is saved. Note, however, that in an absolute sense the direct loans are not handled nearly as quickly as might have been anticipated. If time in the mails was the same for these loans as it was for NYSILL, the typical direct request took fully two weeks from origination to receipt of filled materials.

The analysis has shown that the State Library could have handled some of these loans. In particular, it seems advisable that the Health Sciences Library be asked to exercise more care in its use of this service, both because it tends to ask for materials which the State Library owns and because its use of the service is quite heavy in the first place. Aside from the HSL requests, however, the bulk of materials supplied are not available in New York State outside the referral libraries. Savings in speed appear to be substantial and volume, although not especially heavy when compared to the overall academic use of NYSILL, nevertheless amounts to a sizable portion of the loads for the particular libraries qualified to make direct requests. It is recommended that the service be continued.

Chapter VIII

PROBLEMS IN THE OPERATION OF NYSILL

As with any other system, NYSILL is plagued with many operational difficulties, some minor and some major. Referral librarians expressed their concern about several problems which prevent them from giving the best possible service. At the other end of the system, requesting libraries are anxious not only to receive the best service, but to help NYSILL by being cooperative and alleviating some of the stresses on the referral libraries. Again, many of these problems are not major nor insurmountable, but they do add to the burdens of the librarians, cause the waste of time, and add to the cost of NYSILL operations.

COMMUNICATION AND INFORMATION TRANSFERRAL IN NYSILL

The problems of bibliographic citations, as encountered in Phase I of NYSILL, seem to have been considerably alleviated with the new TWX format and the use of punched paper tape. Typographical errors are still in evidence, but do not usually present major difficulties. Interviews with referral center librarians, however, indicated that the major problem now is with the verification information supplied by the requesting library. There seems to be some confusion in this matter, since almost two-thirds of the libraries in the state surveyed for this study said they verified their requests before submitting them.

Verification of NYSILL Requests

Verification, in library terms, means that a citation has been checked, in published listings, to ascertain that all available bibliographic elements have been provided and are correct. In other words, the existence of a particular item has been established. This form of verification is most valuable to a librarian in her efforts to locate material in a library's collections. Of course, referral librarians are aware that the bibiliographic tools necessary for such verification are not available at all libraries.

Referral librarians have asked that when such verification is not available, the source of the citation should be included instead, and identified as such. Knowing the source of a citation is helpful in establishing its validity, and can provide additional searching hints, such as subjects, authors, or other publications.

It might also be helpful to remember that location guides do not always provide bibliographic verification. For example, New Serial Titles establishes the correct title of a serial and identifies libraries that hold the title; however, it does not verify the existence of a particular article in an issue of a serial, nor does it ascertain that the needed issue is available in holding library.

The following is an example of a request submitted to NYSILL (it has been copied just as it was transmitted):

```
RCLS 10-530-52          O
PERIODICAL PHOTOCOPY
U.S. JOINT PUBLICATIONS RESEARCH SERVICE
JPRS,V 14, 1962     PP 954
ECONOMIC GEOGRAPHY OF SOUTH CHINA (KWAHNTUGG, KWANGSI & FUKIEN)
NEW SERIAL TITLES PP. 276
                              PEARL RIVER PUB. LIB.
80 FRANKLIN AVE.
@EARL RIVER, N.Y.  10965
DL 12-15-68
```

It was considered that additional information was needed on this request, although sufficient bibliographic elements have been supplied to identify this as a government document dealing with Asian geography. The item could easily have been referred to New York University, New York Public Library or Columbia University. One element of information required for referral was not supplied: the Dewey Decimal number. However, other requests with missing information were referred. The reference to New Serial Titles establishes that a "U.S. Joint Publications Research Service (JPRS)" does indeed exist, but does not establish that volume 14, 1962 does in fact contain the cited article. A citation of the article would be found in the Monthly Catalog of U.S. Government Publications.

Status Reports on Unfilled Requests

Referral librarians are still concerned, as they were last year, with supplying the requesting library with information on unfilled requests. Bibliographic and holding information may enable the requesting library to obtain needed materials from other sources, especially when a NYSILL resource has the needed verification tools lacking at some requesting libraries.

Users have commented that they often have carefully checked holding information and included this on their NYSILL request (according to NYSILL Manual instructions) but that this information has sometimes been ignored. The users have also asked that they be supplied more information on their unfilled requests. The report symbols, though generally clear, are not necessarily used, and when they are the answers provided are not always satisfactory. For example, "F" (Inadequate citation. Request cancelled) does not indicate what information is missing; "J" (Request ineligible for further referral) does not give a reason why; "H" (Material requested owned by referral library, but not available for circulation at time of request) does not indicate whether the request might be resubmitted at a later date. More detailed status reports will become more feasible where NYSILL operations are further automated (See Chapter IX).

Management of the Referral Network

In another context, referral and user librarians have complained of the difficulty in getting replies to operational and administrative questions from the State Library, and of the ambiguity of some instructions in the NYSILL Manual. Referral librarians, in particular, are concerned with the lack of administrative assistance available to them in setting up records, instructions on establishing NYSILL services, and the general lack of coordination. Several referral librarians were not sure whether the five working days time limit to report the status of requests includes the day the request was received. Often requests are received in the late afternoon and cannot be worked on until the following morning.[1] It was suggested that the State Library hold training sessions and refresher courses for NYSILL librarians at regular intervals. Issues such as these can largely be met and eliminated by instituting regular conferences among participating librarians, now that the system has moved beyond its experimental status.

DELIVERING NYSILL LOANS

Another problem affecting NYSILL operations is the time taken to deliver filled requests. What is the fastest way to handle these, given limited amounts of money? To explore this question, a set of estimates has been prepared of the volume of filled requests for an average week in 1970. Separate figures are given for each of several combinations of filling library and geographic region within the state. The usual cautions regarding projections apply here. In particular, there could be changes in the makeup of the libraries contracting with NYSILL, changes in the overall rate of filling, changes in the portion of referrals, or creation of additional regional networks. Any one of these factors could affect these estimates, which are based on present patterns of service in the system, and which allow only for overall growth. The data appear in Table 8.1.

In general, all combinations of sending and receiving points in this table are presently serviced by the use of the United State mail, sending materials out under book rates. One major exception exists: loans from the State Library to most of the Upstate Eastern region are normally transported directly by truck to those institutions serviced by the Capital District 3R's Council delivery system. This includes materials sent to universities in that area, as well as materials to public libraries affiliated with the Upper Hudson, Mohawk Valley, and Southern Adirondack Library System transmission sites. As long as this service continues, it will account for a fair portion of the total projected volume of loans in 1970.

The present elapsed time for delivery of filled items is almost one week (including holidays and weekends). Any suggested alternatives to current practices must make substantial improvements in this

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[1] In this study, elapsed times do not count the day the item was received; the day sent is counted as a full day regardless of whether the item left the library in the morning or afternoon.

Table 8.1

FILLED NYSILL REQUESTS IN 1970: ESTIMATED WEEKLY DELIVERY LOAD, FROM RESOURCES TO FOUR GEOGRAPHIC REGIONS

Loans filled at...	...must be delivered to:				Total
	New York Metro	Upstate Eastern	Upstate Cental	Upstate Western	
The State Library	368	300	172	100	940
Referral Libraries in New York Metro Area[a]	44	85	27	39	195
Others:					
Buffalo & Erie	10	29	14	5	58
Rochester Public	10	10	2	8	30
Cornell University	4	27	12	16	59
Total	436	451	227	168	1,282

[a] All present referral libraries except those in "others," above.

time if increased costs are to be justified. Among the possible alternatives are first-class mail, facsimile transmission, a dedicated (i.e., for the exclusive use of the State Library) delivery system, and the use of non-dedicated delivery systems (e.g., United Parcel Service). These options are explored in greater detail below, with one exception: facsimile transmission. The State Library has already experimented with this type of service, and halted the experiment after it proved to be very expensive and not particularly reliable (see Chapter I).

The two mail options may be used to establish criteria. Both book-rate and first-class mail service may be assumed to be as reliable as any alternative. Book-rate service is cheap (most items would cost thirty cents or less to mail anywhere in the state) but slow (it results in the present delay of a week for delivery). First-class mail is fast--even under the most pessimistic conditions, most items could be expected to arrive within three days, with the possible exception of the holiday season. It is quite expensive, as Table 8.2 shows. Most book loans could be expected to cost between one and two dollars each for mailing by first-class rates.

Table 8.2

MAILING COSTS: ALL POINTS IN NEW YORK STATE (FIRST CLASS, BOOK RATE)

Weight, in Pounds	Postage		Example of a Book in This Weight Category:
	First Class	Book Rates	
1 - 1.5	$.98	$.18	Library Statistics: A Handbook (Chicago: ALA, 1966)
1.5 - 2	1.16	.18	Library Surveys (New York: Columbia, 1967)
2 - 2.5	1.40	.24	The Bowker Annual, 1968 (New York: R. R. Bowker)
2.5 - 3	1.64	.24	Statistical Abstract of the United States, 1966 (USGPO)
3 - 3.5	1.88	.30	Who's Who in Library Service (New York: Shoe String, 1966)
3.5 - 4	2.12	.30	American Universities and Colleges (Washington: A.C.E., 1964)
4 - 4.5	2.36	.36	Guide to Reference Books (Chicago: ALA, 1967)
4.5 - 5	2.60	.36	City and County Data Book, 1967 (USGPO)
5 or more	3.08+	.42+	American Library Directory (New York: Bowker, 1967)

However, even this cost is no more expensive than the estimates which the State Library has received for a dedicated delivery service. Such a service between the State Library, the referral libraries, and selected 3R's councils, with estimated volume running between 600 and 800 items per day (a figure which would not be even closely approximated by 1970, as Table 8.1 shows), and with 48-hour deliveries, would cost about $1.40 per book if the 1970 projection is accurate. When volume does reach the levels suggested by the State Library, costs would be reduced to more moderate levels--about fifty cents per filled request--but such loads should not be anticipated in NYSILL during the next few years. Even with such a service, moreover, time delays would only be partially solved. Additional delivery services between 3R's councils and local libraries would be required. Assuming two days to sort out materials and transport them to the requesting library--an estimate which, given known problems with such operations in the past, is very optimistic--then the dedicated delivery service still results in overall average elapsed times of four days. Even if the large volume needed to make the statewide service feasible could be achieved, real costs would have to include the expenses for local delivery, which at minimum could not be expected to go much below another fifty cents per item. Overall, then, the choice is between present delays of a week, with associated costs of about thirty cents per item, and delays of four days with costs at least tripled over current levels; and this is the most optimistic comparison possible. The only sensible conclusion is that dedicated statewide delivery systems are not likely to prove to be good answers to the NYSILL delivery problem, at least not in the foreseeable future.

This does not rule out the partial use of such systems. Table 8.1 shows that a very large portion of all loans filled in NYSILL falls into a small number of relatively simple paths between library and patron. In particular, more than a quarter of all loans projected for 1970 will be from the State Library to libraries in the New York Metropolitan region. If existing delivery services at the request transmission sites in this area can handle NYSILL loans quickly, then a daily delivery service between the State Library and these downstate libraries might be cost-effective. Presently, however, existing local delivery systems have many other items to handle other than interlibrary loans, and it is not at all certain that NYSILL requests could be processed quickly enough to make this strategy a realistic alternative to present-day mail service.

The same problem applies to an interim solution: use of non-dedicated services. If a local system can provide speedy delivery, then the main problem is getting filled materials to the system headquarters. If a dedicated service is too expensive to accomplish this task, an alternative is available through the use of general delivery companies. For example, the maximum rate at United Parcel Service for a fifty-pound package between any two points in New York State is $3.20; for many combinations of points (for example, between the State Library and Long Island) lower rates apply. If one assumes an average weight for NYSILL book loans of three pounds each, a single shipment of 16 books could be made to, say, the Buffalo and Erie County Library at an average cost of twenty cents each, or less than book rate costs, with delivery within 48 hours. Limitations on this option exist. Any number of packages may be shipped, but no one package may exceed 50 pounds and the total weight for any given consignee cannot exceed 100 pounds per day. Thus on a heavy day not all items could be sent out. Nevertheless, this alternative offers some interesting possibilities for those loans which may be serviced by local system delivery services without undue delays.

For requests filled by the referral libraries, special problems exist due to reduced delivery volume. To some extent this could be handled by arranging for a central shipment center for referral libraries in New York City, but projected volume does not appear to be sufficient to make this an attractive solution. A partial improvement could be made if the State Library requested all referral libraries to ship photocopies or other light-weight materials by first class mail. For such loans postage should not be greatly increased; present unit fees could continue to cover most of the increased cost. If need be, the State Library could either reimburse mailing costs on a direct basis (in which case unit fees should be adjusted downward), could raise all unit fees slightly to cover increased mailing for photocopies only, or could create a separate unit fee for requests filled by photocopying. This last alternative is probably the best, since reporting procedures to the State Library already include a separate status code for this condition.

For heavier materials supplied by referral libraries, the question is whether it is worth an additional one to two dollars in cost to send some filled requests by first-class mail, in order to save about four days' time in delivery. For some requests, such a cost might be justified; for most, it would not be. One way to deal with this would be simply to pass first-class mail costs on to the patron. Probably most persons would be dubious about paying these, especially after they realized that it would take a week to handle the loan even with such a service. The alternative would be for the State Library simply to underwrite shipment costs for those loans sent by first-class mail. This would be quite costly and would require additional accounting systems. For these reasons, it does not seem reasonable to recommend such services.

THE TELETYPE AND NYSILL

NYSILL is dependent on the teletype for the speedy transfer of requests from transmission sites libraries to the State Library and to referral centers. This communication by teletype has an effect on interlibrary lending, because it alters the traditional pattern of dependence on the standard ALA form. First, the ALA form carries some information not presently transmitted by TWX, such as more detailed statuses for reporting unfilled materials; and its format makes it reliable and convenient to use. At the same time, however, this format is a serious drawback for use in any interlibrary loan network involving referral to more than a single library, because nowhere on the form is there any provision for entry of outcomes after receipt at the first location, preferred routing if the loan is not immediately filled, and other characteristics unique to loans handled in an organized system.[2]

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[2] Despite the fact that the form has recently been revised, given the proliferation of networks it seems likely that a new ALA form will be needed which would provide for these multiple referrals.

Second, preparing ALA forms in triplicate and using the mail for sending requests to a resource keeps errors of copying to a minimum. The present TWX setup meets the same problem by using paper tape output to reproduce the original message, as recommended in the previous NYSILL report.

Third, TWX is instantaneous; ALA forms are not. The difference in speed is not merely due to technological distinctions. The formidable advantage of TWX is also due to the fact that mail rooms are bypassed at both ends and that output is immediately ready for processing. The speed advantage is nullified, however, for anyone without access to a machine.

Fourth, TWX operation requires training and a skilled clerical person who will pay a considerable amount of attention to the peculiarities of the machine and its capabilities. The State Library has engaged in considerable effort to provide this kind of training--among other things it has engaged in instructing remote operators, using the teletype as a teaching machine. Nonetheless transmission problems continue to appear with some frequency: lists of requests turn up at the wrong referral library, lists are transmitted so that perforations in hard copy cut across the data for a single request, and so on. Using ALA forms presents none of these problems.

And finally, a different ALA form is used for photoduplication orders. This is inappropriate for most network use, where items may be filled by photoduplication or by hard copy at the resource's option, as well as at the request of the originating library.

Not all of the potentials of TWX have been exploited thus far, and for good reason. Although the machines could be used for direct transmissions between any two stations, a system operating on this basis would be next to impossible to control. Furthermore most libraries would probably find that time at the machine would be considerably increased, because the number of machines now in operation in NYSILL generates more than 500 possible two-way linkages. To set up separate times for transmittal for each of these would be foolish. Without separate times for transmission, operator time would be consumed because of the need to wait until a line is clear. Probably some bypassing of the State Library ought to be permitted on a limited basis, however. This is already done for second and third referrals, with these simply reported to the State Library as well as sent on directly to the next resource center. (There have been problems of failure to report these to the ILL Unit at Albany, but these have been viewed in this report as administrative problems, not technological ones.)

The availability of the TWX has resulted in some use of NYSILL by unexpected sources. The survey of New York libraries indicates that well over 100 of these institutions now have access to teletype machines. Libraries which were not originally included in plans for the system have submitted requests over the teletype, some in such volume that they are now formally recognized as NYSILL transmission sites. These include Queens College, the University of Rochester, the Health Sciences Library at the State University of New York at Buffalo (in addition to SUNY-Buffalo's main library), the New York University Medical Center, Syracuse University, the Medical Research Library in Brooklyn, and several other colleges which joined the system last year (Clarkson, Hamilton, and Union). Requests have also been received at the State Library by TWX from Long Island University; the Wilbur Cross Library at the University of Connecticut; Indiana State University at Terre Haute; the Syracuse University Medical Center; the Canadian National Library at Ottawa; the Providence, Rhode Island, library; Vassar Hospital Library; Panhandle State College, Goodwell, Oklahoma; and Rice University in Houston. The other major transmission sites which are not public library systems have all been with the system since its inception, and include several SUNY campuses and Brookhaven National Laboratories. If borrowing by new libraries in and outside New York continues to grow, one can foresee a need for systemization and official times for such calls, lest they interfere with regular NYSILL requesting.

The major problems with TWX, as indicated above, have had to do with errors caused by the need to copy requests prior to the use of the paper tape, and with operator errors. Interviews for this study indicate very clearly that both of these matters have substantially improved since NYSILL's inception in March 1967. By the Fall of 1968, librarians generally felt that copy was much better, that garbled transmissions were less frequent, and that the system as a whole operated fairly well. It is reasonable, then, to expect that the system should continue to use TWX or a comparable medium of transmission, as long as it also continues to devote effort to training and prevention of errors. Changes should come about, if at all, in the uses to which the machinery is put, as suggested above. It ought to be noted here that the previous NYSILL report recommended the use of pre-printed paper in the machines, for the advantage in clarity and convenience this would bring by approximating the format of ALA forms. Apparently, however, such paper is not easily procured in the limited amounts needed for NYSILL.

The Format of Teletyped Requests

Many of the remaining problems of TWX transmission can be met by making minor modifications in the present format for teletyped requests. In particular, the following changes are worth consideration:

1. Skipping a space between each line of data, to provide for easier reading and correcting.

2. Establishing a clear-cut order for the various information fields which may be used. The NYSILL Manual implies, and does not state specifically, that information should go in a definite order, but requests are received in which these conventions are not followed.

3. Providing a definite space on each record for referral histories. This would enable the final copy of the TWX record to serve as a complete report to the requesting libraries.

4. Expansion of the patron status code to include more detailed occupational categories.

5. Provision for remarks, which could cover most of the ambiguities in status codes and enable referral libraries to pass extra information back to the requestor.

6. An "end" statement to clearly delineate the termination of data on a given time.

If these modifications were carried out, the resulting format would closely resemble that used by the National Library of Medicine for TWX data, if the NLM conventions were to be adapted to a multiple referral system. This has additional advantages, because it is likely that adherence to standards which are as widely accepted as possible will result in greater uniformity of NYSILL requests.

In illustration, here is an example of a NYSILL request as it was actually transmitted:

```
SLS 10-1407 FOR 41          610         0
LANCET. 2
1967 (PROBABLY AUGUST        VOL.2      PGS 368+
HUGGERS ET AL
GLUCOSE IN BLOOD AND URINE
SUNY ULS V. 1967 P. 583
STATE U. OF N.Y. AT STONY BROOK
LIB. REFERENCE DEPARTMENT
STONY BROOK, N.Y. 11790

AT CORNELL, COLUMBIA AND NY PL
```

The following is an example of how the same request would be transmitted under the suggested format and with typographical errors corrected. Note that the patron status code has been expanded to include a more detailed occupational code, linked with the originating library number, and that outcomes have been recorded where they were available.

```
SLS 10-1407  FOR 41/ DOCTOR

LANCET 2: (PROBABLY AUGUST) 1967  PGS 368+

HUGGERS, ET AL: GLUCOSE IN BLOOD AND URINE

VER: SUNY ULS V. 1967 P. 583

DDC: 610

STATE U. OF N.Y. AT STONY BROOK
LIB. REF. DEPT.
STONY BROOK, N.Y. 11790

REMARKS:  AT CORNELL, COLUMBIA, NYPL
```

REFERRED: N=C (BINDERY): 11/4 NNN=F: 11/12 NYPL=

CIT: PLS SUPPLY BETTER VERIF. NNN

END SLS 10-1407

It should also be noted that this revised format is much more easily adapted to computer processing than is the present one, since each unit of information occupies a separate line of copy.

Many referral center librarians and NYSILL users suggested that each filled request be accompanied by a form giving the request number, citation, and supplying library. Such a form would insure the return of material to the proper referral library, and would provide the requesting library with sufficient information to quickly locate the original request in their files and deliver the material to the requestor promptly. If three-ply paper were used on TWX machines receiving referrals, a copy of the request with all pertinent notations could be mailed with the requested material. For unfilled items, this copy could serve as a history of the search if the above revisions in format are adopted, and could also be supplied to the requesting library. The Bell Telephone Company verifies that perforated TWX paper may be obtained in up to 6-ply packages; although not all machines will take all kinds of paper, the usefulness of at least 3 copies of a request would justify any required modifications of equipment. The State Library would also need to notify its suppliers of these requirements, as at least one resource library was told that 3-ply performated paper was not available.

The Need for Continuing Effort

The three requests cited below are samples of the type of requests which were submitted via TWX, searched at the New York State Library, not filled, and not referred into the network; they are copied exactly as they were transmitted on the TWX:

NLS11-60 FOR 5
CONN, GEORGE HARLD.
SOME COMMON DISEASES OF THE HORSE.
JUDD '42 CBI 38-42

(1) CEFL 10-1-2
(2) APTHEKER, HERBERT
(3) ESSAYS IN THE HISTORY OF THE AMERICAN NEGRO
(4) INT. PUBS. 1964 (REV. ED.)
(5) BIP '67

FLLS 11-54 FOR 4
MORTON, C.W.
A HISTORY OF THE ROLLS-ROYCE
CUSTOM CARS, 1903-1907 V. 1
CAMBRIDGE, MASS., BENTLEY, ROBERT, INC., 1964
CBI 1965-66

Note that these three requests from different transmission sites were transmitted in three different formats, despite the existence of training effort for teletype operators which was well received and helped to improve the quality of teletyped requests. It is evident that the State Library should continue this training course and in addition provide refresher courses and a systematic method of updating instructions. The State Library should also periodically review the format of teletype requests and re-instruct those transmission sites that do not adhere to the proper format. These examples show again that the existing TWX conventions used by the State Library are simply not clearly understood by requesting libraries.

ROUTING INTERLIBRARY LOANS THROUGH NYSILL

In Phase II, all NYSILL requests (except university "directs") were submitted to the Interlibrary Loan Unit of the State Library, where they were examined for codings and completeness of information. The requests were then searched in the Library's collections and, if not available for circulation, were then evaluated for suitability for referral through the network. If suitable for referral, each request was coded and forwarded to the first referral library with an indication about which second referral library should receive the request if not available at the first. All referrals were made via teletype. As the request was referred through the network, each referral library was responsible for notifying the State Library of any action taken. The State Library was responsible for sending a final report on each request to the originating library.

This new referral system has proven to be successful. Under it more items have been filled, speed has been at least as good as in the past, and both referral librarians and users indicate that requests are transmitted more accurately. However, of the items referred through the NYSILL network and not filled, several serious questions arise as to why they were not filled. The basic question is why a particular referral center was chosen. Although guidelines for referral are set forth in the NYSILL Manual, these are not always easy to adhere to, are not always clear, and are subject to human error.

The following are randomly chosen examples of requests searched and not filled at the State Library, approved and coded for referral into the system, and not filled by the system (see also the exhibits in Chapter III). These examples are presented, not to find fault or to quibble over details, but to illustrate the problems inherent in assigning subjects, determining the level of a request, and selecting the proper referral library. Again, they are copied exactly as transmitted:

```
PLS 11 242 17          636      0
REESE, HERBERT HARSHMAN
THE KELLOG ARABIANS, THEIR BACKGROUND AND INFLUENCE
CALIF., BORDEN 1958
BIP 1968
BROCKPORT-SEYMOUR LIBRARY
49 STATE ST.
BROCKPORT, N.Y. 14420
```

This request was referred first to the Buffalo and Erie County Public Library where it was reported NOS, and finally reported not available for circulation. It is questioned why a legitimate request was not further referred to another area referral library or possibly to Cornell whose subject specialty is agriculture.

SLS 11 93 FOR 8 001 0
ODDS AND BOOKENDS
VOL. 44 WINTER 1964 PGS 13-38
HACKER, H.S.
RECIPROCAL BORROWING PRIVILEGES IN THE MONROE
COUNTY LIBRARY SYSTEM
LIB. LIT. 1964-66
ENTER MORICHES LIB.
529 MAIN ST.
CENTER MORICHES, N.Y. 11934

This request, whose level is not appreciably higher than the previous request, was referred to Columbia University. Columbia is not listed in the Manual as having responsibilities in library science, and reported the material NOS. Why was the request not sent to the Rochester Public Library, an area referral center and the home of the Monroe County Library System?

MVLA 10235 610 0
CALLAHAN, SIDNEY
BEYOND BIRTH CONTROL
SHEED 1968
FCB SEPT. '68
INTERLIBRARY LOAN, MOHAWK VALLEY LIBRARY ASSOCIATION
UNION STREET AND SEWARD PLACE
SCHENECTADY, N.Y. 12305

This request was referred to the Buffalo and Erie County Public Library where it was reported NIL, and then to the Rochester Public Library where it was reported NOS. Why was the request not referred to the New York Academy of Medicine or possibly Union Theological Seminary, since Sheed is a publisher of religious and philosophical materials?

UN 10-52
BONILLA, FRANK & SILVA-MICHELENA, JOSE, ED.
STRATEGY OF RESEARCH ON SOCIAL POLICY
MIT 1967
F NUC 309
UNION COL LIB
SCHENECTADY, N.Y. 12308

This request was referred to New York University Library, since NYU is responsible for sociology; it was reported NIL at NYU and in the system. The request might have been interpreted as political science, however, and referred again to Cornell.

The need for a sharper definition of subjects and level of requests, discussed in Chapter IV, becomes evident from the few samples cited above and from a close perusal of subject responsibilities of referral libraries as listed in the NYSILL Manual. Numerous subjects and forms have not been specifically assigned to any referral library, e.g., library science, geophysics, paleontology, microbiology, Russian history, the arts (except music), government documents, etc. In addition subject responsibilities are sometimes vague and the terminology does not correspond to the terminology in the Dewey Decimal Classification. For example, does "Middle East," "Africa," "South East Asia," "Japan," "China," etc., include the history, politics, literature, or language of these areas? Where do international, canon, and ecclesiastical law fit, in foreign law or religion?

A thorough review of the assigned subject responsibilites of referral libraries is necessary to provide the most efficient use of these resource collections. It is know that the New York Public Library, as well as Columbia, has an excellent Slavic collection; the American Museum of Natural History has excellent collections in paleontology, zoology, anthropology, and geology; Columbia University has a library science library. More specific definitions of subject responsibilities, both from the point of view of terminology and of actual collections, would help in the assignment of subjects and in the referral process until machine capability permits automatic referral. The needed review could begin by drawing on the expertise of all NYSILL librarians to study present subject assignments, concentrating on identification of libraries which may be able to share responsibilities for a subject, and on location of topics which may not be well serviced by any present NYSILL resource.

The results of such an investigation should be matched to an exhaustive list of subjects. No list will be perfect; Dewey classes will serve if suitable modifications could be made to identify fields of knowledge missing from the current list. By these means a master file can be produced linking NYSILL libraries with subject specialties. This file should then be published in thesaurus form, with one listing by subject fields showing referral libraries, and a second listing of libraries showing assigned subject responsibilities. The NYSILL Manual provides only for the latter listing, and it is the former one which is likely to be more useful for routing purposes. It is assumed that some subjects may, after consideration in the review, be assigned to more than one library, while other potential topics may be explicitly noted as not assigned at all.

A review such as this will be a necessary first step in making an automated referral process feasible. The possibilities of computers for NYSILL are taken up in the next chapter, and further development of this proposal for routing is resumed in Chapter X.

Chapter IX

NYSILL AND LIBRARY TECHNOLOGY

One of the more reasoned statements about automation and libraries to appear in recent months is that of Herman Kahn and Anthony Wiener in The Year 2000:

> The problems of putting something like the Library of Congress conveniently at the fingertips of any user anywhere are dependent on our understanding and simulation of the ways in which people make associations and value judgements. Technological advances. . . are reducing the cost of operating a large information storage and retrieval system, but currently the human labor involved in collecting and analyzing records is still enormous. . . . For storage and retrieval of categories of information that can be described in a straightforward way, adequate systems exist now and will continue to grow rapidly. . . . This seems to be one of those quite common situations in which early in the innovation period many exaggerated claims are made, then there is disillusionment and a swing to overconservative prediction and a general pessimism and skepticism, then finally when a reasonable degree of development has been obtained and a learning period navigated, many--if not all--of the early "ridiculous" exaggerations are greatly exceeded.
>
> (from Chapter II, "Comments on Science and Technology," pp. 93-95)

This is not to belittle the pessimistic short-term observations by knowledgable library systems people which have appeared in the professional literature over the past several years. For example, Theodore Stein has noted (in Library Journal, July, 1964) the "unwarranted enthusiasm" for ambitious "total library" systems. Much the same point of view was expressed by Daniel Melcher in an article titled "Automation: Rosy Prospects and Cold Facts" (Library Journal: March 15, 1968). The comments which follow should be taken, then, with all due allowance for this ambiguous outlook of revolutionary possibilities and yet quite conservative predictions for automation of library services in the short run.

The Automation of NYSILL Operations

Much of the operational difficulty of NYSILL may be traced back to the problem of maintaining adequate records in two or more files.

present, input to the system consists of a single teletype (TWX) message. The State Library must maintain at least two separate records for each request: first, a file organized by originators, so that all items coming from a given location can be reported; and second, a file by resource agency, so that the Library may determine what has been sent to a given referral center. Each time a request is transmitted from one place to another, it must be re-entered into the TWX system. Presently most of this work is done manually; the use of paper tape output to re-enter the system has already introduced a degree of partial automation.

Use of the paper tape reduces the likelihood of copying errors, but this tape is no easier to store or locate than any other bulky record. In fact, the use of tapes requires a third storage file to supplement readable TWX messages and control sheets for request transmission sites. Thus the paper tape cannot be expected to solve the problems of recording and maintaining data on request routing and status. It should come as no surprise, then, that referral libraries report that their TWX copy is generally cleaner and better organized than in the past, but that periodic queries from the State Library for status of referrals often refer to items which were never sent to the referral library, and others which were successfully handled and reported. To meet these difficulties, a change is needed which would create a convenient and accurate record storage system, in addition to providing accurate transmission of copy.

In simplified outline, such a system could consist of a record (either on paper, as with the ALA form, a coded record like the TWX paper tape, or an automated computer-based file) for every request, identified with a code to denote the resource library being used (for example, "D" for The New York Public Library) and another code to stand for the transmission site concerned (for example, "20" for the Nioga Library System). To locate all items sent to NYPL, one would pull out all "D's" from the file; to locate all items which came from Nioga, one would pull out all "20's". Under such a system:

- there would be no need to maintain duplicate records, with the further chance for error inherent in such a procedure; and

- all information about a request would be in a single location, thus eliminating the present need to match data from more than one file to ascertain what has happened to a given set of requests.

A manual system such as this would, of course, be extremely time-consuming in operation. Currently, it is much more sensible to accept the problems inherent in maintaining multiple records, so that the present NYSILL operation can handle requests with a reasonable degree of speed. The State Library, however, is exploring means for establishing a computer-based operation for NYSILL which in effect simulates the advantages of the master file system described above. Through a direct link between TWX and the computer, this operation would both fill the record keeping function and provide the transmission advantages presently met by the use of paper tape. It seems likely that such a system is a necessary condition for substantial improvements of NYSILL operations in the future. This is not to imply that automating NYSILL operations will be easy or painless; but the nature of the operation and the volume of the load is such that application of computer technology seems sensible from the point of view of both service and economic feasibility.

Note that nothing in this process substitutes for professional judgment. The only change is an alteration in the records and the way in which they are maintained, for purposes of control and reporting. To automate routing decisions requires a considerably more ambitious program, one which is explored below.

The Automation of the Referral Process

Here the basic question is quite simple: what methods will best insure that requests are sent speedily to a library which will fill them--and the answers, as in so many other aspects of interlibrary loan, are very complex indeed. There are several possible strategies for optimizing the payoff possibilities for a given interlibrary loan, some of which have received considerable attention and some which have received almost none. Traditionally, the preferred approach has been to ascertain where an item is held and available for loan, through recourse to union catalogs, the Library of Congress, or other sources. The loan is then sent to the appropriate agency. This approach may be called a "definite success" strategy because it implies that requests should be sent only to those places which are known to loan the specific item. The approach demands a professional librarian and thus is both time-consuming and expensive, whether a system is national, local, or regional--at some point in time someone must locate holdings information. The approach has a very high probability of a favorable outcome, as evidenced by the questionnaire data in Part II of this report. It also appears to be relatively rapid, but this speed may be misleading: it is not at all clear that librarians take into account any delays between the time a patron's request is initiated and the time they actually mail out an ALA form when reporting on the speed of ILL handling.

A second approach is to send a request off to some larger or more specialized library, with the assumption that either or both of these characteristics result in a fairly good chance of success. This approach may be called an "indefinite success" strategy because whether or not the item is actually available is not known. It is not time-consuming in the way that the first approach is. Delays here are a result of the failure of the system to deliver the needed items, whereas delay in the "definite success" approach results from the need to process the request prior to referral. NYSILL operates on a variation of this second strategy, in the sense that routing does take known subject strengths of various collections into account, but no attempt is made to always check holdings data on each request.

A point that librarians are likely to raise with respect to this second, "indefinite" strategy is that it seems to leave the door open to overloading a single resource library. This may happen, of course, in a poorly administered system. However, one may argue that the traditional approach runs the same risk. To the initiating librarian, it could appear that her efforts to use diversified resources result in a fair division of labor for referral centers, and to some extent it probably does do just that. But much diversification of the load may also come about simply because libraries do, in fact, have different subject strengths, and there are really not so many first-rank libraries around that a choice of referrals is always possible. Hence it seems likely that to some degree certain libraries will receive a disproportionate part of the ILL load in a given field, no matter what system is used to reach them. Rather than attempt to diversify, it might be just as sensible to continue existing trends in which public funds are used to support interlibrary loan services, while at the same time emphasizing regional, state, and federal systems. The latter step is required to help prevent overloads on a few nationally known research libraries.

With these modes in mind, it is possible to describe how ILL might be automated under each strategy and to suggest a third approach which draws on both. Under the "definite success" system routing decisions may be made by machine, by matching requests up with data from a computer-based union list. Here the basic difficulty is the formidable problem of creating and maintaining such lists, particularly lists of the enormous size which would be required for a general-purpose interlibrary loan network. Alternatively, under the "indefinite success" strategy referral decisions can be made automatically by simply specifying that all items meeting a given set of conditions (such as a certain Dewey Decimal number, a particular kind of patron or library type, some general subject category) are to be sent to a particular library. If these criteria are simple enough, requests can be classified on them efficiently by non-professional personnel. The originating librarian could make the initial decision about whether or not the item may be referred at all, and then simple subject categories could be used to determine where an item might be referred. Given this data, computers could easily route requests, control multiple referrals, and print out lists of items requiring special professional attention.

To measure the effectiveness of the indefinite strategy, one may inquire into the success rate of the system. For example, if most requests sent to a given library are filled, one may conclude that--for those requests and that library, at least--the procedure works adequately. For this strategy to successfully compete with the "definite success" mode, enough items must be filled quickly to overcome the drawbacks of delays for items not filled. Thus, each approach tends to favor a particular kind of item: the "definite success" strategy would be most appropriate for relatively rare items, the "indefinite" for relatively common ones. It should be no surprise, then, to find public libraries approving NYSILL and academic libraries arguing for a return to ALA forms, direct contact, and strict adherence to the principle of location prior to making the request, as formally codified in the use of holdings data.

For two reasons, however, the "definite success" strategy poses serious problems even for very high-level patrons and their librarians. First, sheer volume of ILL means that professional attention simply cannot be given to very many loans without incurring considerable delays. Second, the approach is inefficient in that it fails to take advantage of the possibilities for use of the "indefinite" strategy to handle those portions of the load which can be effectively served on a general-chance-of-success basis. On the other hand, complete dependence on the "indefinite" mode ignores the fact that some kinds of items will be more amenable to such an approach than others. Clearly what is needed is some way to identify what kinds of loans may be immediately referred without seeking exact data on holdings, so that the remaining requests can receive professional attention without making unrealistic assumptions about just how much professional attention there is to give.

Such an approach would be a "mixed" strategy, acknowledging the special advantages of both "definite" and "indefinite" approaches and depending heavily on periodic analysis and review of the nature of ILL to isolate the items which may be immediately referred. The requests which are likely to be filled by "indefinite" referral could be immediately sent to resource institutions, while others could be pulled out for recourse to union lists or similar tools. The rationale of such an approach is based on the assumption that some items can be routed without professional assistance more effectively than others--and in fact this kind of outcome is reflected in the data for this survey. For example, some of those subject areas which were found to be difficult to code accurately --and which therefore might be assumed to be the areas of greatest ambiguity for successful referral--were, in fact, less likely to be filled by the referral libraries. In general, success for all requests in certain subject categories, particularly in the medical sciences, was rather good, while other subject areas experienced somewhat poorer rates of filling. One could conclude that it may be sensible for the State Library to continue its "indefinite success" strategy for those items which are in groups with very high success rates, while instituting a mechanism to pull out requests in more troublesome categories for review by a professional librarian..

This same general strategy could be applied to the choice of a general type of resource to be queried. Rather than identify the exact library to which a request should be sent, it is possible that a considerable gain in effectiveness can be achieved by simply specifying whether an item should be sent first to a local, regional, or statewide resource. For example, the success among faculty requests for the referral network is great enough to suggest that there may be some identifiable portion of these which might be handled more speedily by sending them directly to subject centers, without searching at the State Library. In any one of these cases, a single characteristic alone is not likely to be enough to identify the best routing. But several characteristics in combination may do the trick. Here is where an automated system comes into its own, for a machine can check for many conditions and perform a relatively complex "indefinite" routing while still avoiding the very serious problems which must be overcome to apply computers to the "definite success" approach.[1]

NYSILL presently allows for the use of holdings data to determine a pattern of referral. Reaction to this practice is inconclusive. Users have commented that holdings statements are not always followed. On the other hand, system personnel have found that this information is not always reliable. Union lists are not error-free, and may be dated; items may be placed in storage, put on reserve, or lost. Nevertheless, if holdings data is supplied with a request, this should take precedence over other routing alternatives. This permits an explicit test of the reliability of the "definite" strategy for a given loan; it allows errors in bibliographic tools to be identified; it is consistent with traditional ILL practices; and, even allowing for errors or "not available" outcomes, it seems as likely as any other alternative to result in a filled request. In the short run, these considerations should lead to a more precise codification of NYSILL routing procedures and status reporting practices. For example, they suggest that the formal policy of NYSILL should be to follow holdings statements if they are provided (or if not, to supply an explanation so that the user can correct his bibliographic records). They also suggest that a new status code is needed to denote the condition "sent to library named in holdings statement, but not filled."

The Automation of Interlibrary Communications

Interlibrary loans handled by NYSILL or by the two regional networks presently are transmitted by a variety of methods: TWX, telephone, mail, or carried by hand. While most of these methods will continue to be used in the future, one seems likely to be phased out at some point: TWX. This is not due to any particular present problem with TWX technology, but rather reflects the vulnerable position of any communication device dependent on an institutional framework. TWX communication in libraries has come about because the organizations involved made an enforcable decision to have it--and they can just as easily decide to replace it with something else. They cannot control the actions of patrons in general, however, and so phone, mail and in-person queries to libraries are likely to continue as a part of the system.

The technology most likely to supplant TWX, as long as consideration is restricted to those devices known to be in development at this writing, is a real-time direct linkage to a central operating computer facility. Systems of this type operate at IBM (which has obvious advantages in its ability to establish and maintain such an operation). The IBM system does not handle ILL as such, but does generate card catalogs from which holdings data for "definite success" strategy loans can be initiated within the limits of what is held by the system's libraries (Bateman and Farris, 1968). Despite the existence of such prototype systems, it is unlikely that this sort of technology will be brought to bear on NYSILL at any time in the near future. A considerable number of technical problems remain to be solved, not the least of them the size of machine presently needed to service any large number of remote terminals without incurring unacceptable delays during transmission. A separate review of the present TWX system and its possibilities has been included in Chapter VIII.

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[1] Technically, this difference in ease of application is due to the fact that the "indefinite" strategy does not require the machine storage of large and complex amounts of data, such as an automated bibliographic file.

Interfaces and Data Banks: Other Automation Possibilities

An "interface," in the language of systems analysis and information retrieval, is a linkage point between two systems: a point at which communication may occur. For example, NYSILL could be termed an interface between the research and reference community and the system of librarians which serve that community. If interlibrary loan programs in New York are to grow in an orderly fashion, for the sake of cost efficiency if for no other reason, then recent developments indicate that a systematic study of the interfaces between different ILL networks, information retrieval systems, and the publics served by each of these is needed. Much the same recommendation has been made at the national level by the reports to the National Advisory Commission on Libraries (Technology and Libraries, System Development Corporation, 1967, pp. 70-71). In New York State, there are already a number of these programs either operating or in the proposal stages, programs which often either overlap one another or fail to allow for adequate use of each other's facilities. These include:

- NYSILL, including the two regional networks;
- The various programs of the Library of Congress, including the national union lists, MARC II, the serials data program;
- A variety of medical networks within or reaching into the State, including the SUNY-Biomedical Communications System, MEDLARS, the Upstate Medical Interlibrary Loan Network;
- A potential bibliographic system for all public colleges and universities in the State;
- Several formally organized private or special library systems, in particular that of IBM;
- Information storage and retrieval programs linked to particular scientific disciplines, such as Chemical Abstracts; and
- Formally organized cooperative programs among first-rank private universities in and outside New York, such as the Five Associated University Libraries program and a proposed Ivy League ILL network.

In addition, a growing number of other states have or are planning to have their own NYSILL-type systems. For example, an interlibrary loan network drawing largely on the resources of Yale University exists in Connecticut; the State of Delaware has recently initiated its system (DRILL).[2]

These developments have occasionally drawn on each other in establishing operating procedures, system characteristics, and goals. They have not, however, worked out among themselves any really broad-based division of labor, nor have most systems provided for the use of the others. To a limited extent this may be because some of these resources may compete with one another; but more likely, inter-system linkages probably do not yet exist in any number because these programs have only recently left the "pilot" stages to become permanent fixtures. NYSILL, for example, has been classed as "experimental" up to now and only with this report has there been a firm conclusion that the program should be accepted--with allowances for continuing modifications, limitations, and change--as an operating entity.

With the debugging of these systems, however, there now comes a real and immediate need to consolidate for effective overall service. What relationship, if any, should exist between the SUNY-Biomedical Communications System and NYSILL, for example?[3] If a large-scale bibliographic communications system is set up among public colleges, how would this affect NYSILL? Should such a college system provide its own requesting procedure, or should it be limited to the provision of bibliographic data while NYSILL provides the mechanism for obtaining books or periodicals? Should the public university system become, in effect, a referral library for the public libraries served by NYSILL? At what point would any of these linkages take place, or linkages between either system and the proposed automated reference services in development by the State Library (the statewide union list of serials, the computer-based catalog, etc.)? Much the same questions may be asked of most combinations of the several information systems which will be available to library patrons in the future. Without careful planning, there is a real danger that the state's resources will be diluted and that a considerable degree of duplication and wasted effort will result. On the other hand, there is every reason to expect the library community in New York to react favorably and energetically to any effort at building a total cooperative ILL consortium in the state. Such a development seems much closer at hand than one might suppose. What is needed is a set of connections among the several specialized systems so that each may draw on the others whenever it is appropriate to do so.

Making these linkages will not be a simple process. It will probably be necessary to depend on a careful review of needs, defining both a general first-trial resource for certain kinds of libraries and certain kinds of requests, establishing the appropriate levels for referral to other systems, and building in a maximum use of "definite success" strategies for academic, special, and other libraries with consistent needs for relatively rare items. The experience of this study suggests that regional resources will eventually play a very important role in public ILL in the state, and such systems will have to be built into the overall picture. The overall aim of effective service will need to be constantly restated, lest planning result in an overly complicated order of referrals with major delays due to too many intervening stages between the patron and the library which can fill his need.

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[2] For a more detailed review, see Joseph Becker, "Information Network Prospects in the United States," Library Trends, 17:3 (January, 1969), pp. 306-317.

[3] Since this text was drafted, formal arrangements have been made to link SUNY-Biomedical and NYSILL.

One potential outcome of intersystem cooperation will be the ability to store information about completed interlibrary loans. These studies have produced as a byproduct a working system for the storage and analysis of data on library loans. A similar, somewhat less detailed system is being tested at the State Library. Eventually, a pool of information can be built up from such sources which will have a relatively high degree of probability of indicating where an item may be found, so that second requests for an item may go directly to that source which successfully handled the referral in the past. In effect, such a system would tend to build a partial union list by a relatively painless means. It could, of course, be easily linked to other bibliographic files, eliminating duplicate entries and adding in unique data on actual experience with ILL requests for any given item. Small retrospective files on completed loans are already maintained at some libraries, and have proved quite useful. A cooperative central file drawing on all of these sources would, of course, cover far more items and would be available to a larger number of patrons.

"Exaggerated Claims": Automation, ILL, and NYSILL in the Long Run

As recently as 1965, Paul Wasserman wrote: "For [some librarians], the library seems a last refuge from the incursions of the remorseless dehumanization process of modern times. . . . Such attitudes mirror the first faint glimmerings of, and speculation about, the potential obsolescence of many typical library procedures and the wistfulness of an administrative class which savors the familiar routines and balks at active participation in influencing any substitution for these comfortable and comforting arrangements." (The Librarian and the Machine, p. 131). And surely a discussion of libraries in which the terms "interface," "system," "computer," "file," and so on occur again and again must make one wonder just where people are to be considered. Yet it is possible that the new technology will make possible patron services of a wholly new kind, services which reflect special kinds of needs which are only approximately served by traditional interlibrary loan procedures.

For example, traditional ILL practices make a number of assumptions about the nature of the search for information from the patron's point of view, and foremost among these is the idea that the patron has a pretty explicit notion about what he wants. However, this may not be the case at all. Generally speaking, the patron desires information. In some cases, of course, that information may take the form of a precise work by a precise author--but with today's literature even this need might be satisfied by several sources (through reprints, anthologies, academic syntheses, or the existence of parallel articles in several publications). Patron patterns of need of a less specific nature exist at the very highest levels, as studies of scientists' approaches to information clearly show. As long ago as 1961, Melvin Voigt suggested that research scientists have distinctly different approaches to literature which change according to the purpose of the search, and that formal inquiry through a library only accounts for a portion of the scientist's use of the literature available to him (Scientists' Approaches to Information, ACRL). Voigt's findings suggest that the bulk of very high-level library requests are likely to be related to general literature searches, and that other needs--keeping up for current awareness, answering day-to-day research problems--are not likely to be handled by formal means. Routine interlibrary loan, on the other hand, is generally not set up to handle general literature searches. The emphasis on a single form for each item, on a more or less passive stance by the librarian, and on separate handling of each request, argues that the library profession is more alerted to the unique loan rather than the recurring request for many items linked by some common characteristic. Similar patterns might apply to some portions of the public library ILL load; far too little is known about the usage patterns of these patrons. Certainly as more and more of the populace assumes professional roles in life, we can expect the gap in level of use between public and academic libraries to narrow.

In addition to these pressures from the patron, trends are developing in interlibrary loan practices which seem likely to force a broadening of the traditional concerns of the librarian. For example, the automation of NYSILL operations will make data banks more feasible. Data banks, in turn, will generate uses which had not been previously possible; in the words of Marshall McLuhan, the medium will become the message. It is not impossible to foresee, for example, scientific reports tagged in a bibliographic computer file to indicate not only their titles, authors, and subject matters, but classifications of methods used, scientific equipment utilized, and so on. An academic survey written in 1958 for the National Science Foundation (The Flow of Information Among Scientists, Bureau of Applied Social Research, Columbia University) underscored the heavy use of both formal and informal resources to obtain information on research techniques and equipment, information which is not systematically covered by abstracts, indexing services, or other syntheses of the literature. In such a manner a resource developed for one purpose--locating interlibrary loans which are specific in nature--may turn out to be useful for other purposes not foreseen by the state. Crystal balls are notoriously inaccurate devices, but certainly some recognition of these possibilities may enhance plans for existing automation projects.

The new developments which may be expected to receive increased attention are those which would provide alternatives to the traditional approach to interlibrary loan. For example, a formally organized means of requesting a number of items related to some common denominator could be initiated to augment the present strategy of making a separate request for each loan. This type of request has in the past been seen mostly for low-level items, such as "any information on care of house plants."

What is suggested here is that there is a potential need for a service which would admit, as a legitimate ILL request, a demand for "all periodical articles published since 1965 on the restoration of Charles II." In this survey we have seen something of this type of situation. At the Rochester regional network a very large number of items was requested by one gentleman who reportedly was compiling background materials for a dissertation on the political sociology of Parliament. Rather than treat each of these separately, the system might have tried batching the requests so that they could be transmitted, searched, and mailed as a group. (This need not mean, of course, that all items would have to be filled at the same place; the batch of items could be passed from resource to resource. In fact, batching or some similar control may be required to prevent overloading through the inadvertent use--inadvertent because requests are handled separately--of the same library for all items.) To operate such a service on any large scale, however, would be quite expensive, and in all likelihood serious proposals will have to await computer-based bibliographic systems. In the interim the State Library might give some thought to trying out a literature search service on a very small experimental scale, possibly by simply notifying librarians to contact system personnel if they discover very heavy use of NYSILL by a single patron. In such a case special arrangements might well be less expensive than the usual NYSILL referral process. If a single user is going to cost the state several hundred dollars in unit fees (which he could conceivably do with fewer than a hundred requests), it may be both faster and less costly to spend this money to set up a direct linkage between the patron and the resources he is tapping.

Another type of reference and resource need which is not traditionally served by ILL is current awareness reading. Professionals, of course, may be generally expected to maintain their own access to key journals, but a case can be made that a service mode should be created to fill the gap between this strategy and the occasional submission of specific interlibrary loan requests. This mode is known as "scientific dissemination of information" (SDI), in which the patron is routinely supplied with certain journals, documents, other literature or information which falls within his stated area of interest. Thus far SDI has been limited to research establishments, either private or academic, and has proved to be fairly expensive. Yet such services may eventually prove feasible for even public library patrons. The unique feature of SDI is its shift from a professionally passive stance vis-a-vis the patron to an active role in which the library takes the initiative in serving the user. To apply such a strategy on a large scale to ILL would be a truly revolutionary development. This does not appear to be likely at any time in the foreseeable future, but like the possibilities for literature searches, it will be pushed by further development of computer technologies in libraries and it could be tentatively explored now on a manually-operated small-scale pilot basis.

Summary

The State Library's proposal for the automation of the operations of NYSILL will have important benefits. It does not present the enormous difficulties which are inherent in many library applications of computer technology. With these two factors in mind, that proposal should be implemented with all possible speed. Referral strategies in NYSILL should be more carefully explored; data already existing may reveal patron/library/subject combinations which match with very high success rates at certain referral libraries. The identification of such combinations can enable the State Library to concentrate its routing energies on the more ambiguous requests, requests which could benefit from attempts to check holdings information. Finally, a study emphasizing (but not necessarily limited to) NYSILL, and exploring the potential linkages between that system and other library information networks, is needed so that service can take full advantage of the potential of systems which offer special capabilities and strengths.

PART V:

INTERLIBRARY LOAN IN NEW YORK STATE

> The amount of information needed to effectively run a large corporation is now so great that it cannot be contained within a single head... Many men are needed because much must be known, and each of these must be a specialist because much of what must be known is based on highly abstruse theory... Even more highly trained experts are required to provide the innovations that are the life blood of the economic system...
>
> --Joe L. Spaeth, from the manuscript of a book on the American college graduate (in press: Aldine, 1969)

Chapter X

THE ROLE OF THE NEW YORK STATE LIBRARY

Following the historical review in Chapter I, this report has presented a wide variety of data dealing with information needs and some of the library services which exist to deal with these needs. Interlibrary loan is, of course, only one piece of a larger system of services which includes the formal educational institutions, the organized collections of each library, and the informal resources available to each individual through his personal contacts and professional colleagues. The place of interlibrary loan in this overall context is a pivotal one, however, because interlibrary loan is the only widespread, formally organized service which allows the patron to reach out beyond those materials physically available in his own locality.[1]

Interlibrary loan, then, is a crucial service for anyone interested in doing serious study. It is true that some scholars or writers have the wherewithal to actually transport themselves rather than borrow materials from a distant source; for example, one may travel to Washington to use the Library of Congress. Most persons cannot afford this option, however, and need to be able to send for materials not available in nearby resources. While granting that interlibrary loan is primarily a research service, one should not discount the uses made of interlibrary loan by people who are not necessarily engaged in formal study. Work done by Philip Ennis, a sociologist of reading, is relevant here. He has noted that books are used to achieve many ends: to escape, to provide a pragmatic means for gathering information, to explore topics of personal interest, to provide a "kind of map to the moral landscape," to provide evidence for beliefs or opinions, to obtain information required by professional or community roles, or simply to accomplish social purposes by keeping up with the intellectual interests of others.[2] Some of these needs may be just as valid, in an absolute sense, as those of formal research.

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[1] Competing services are beginning to emerge, however, as was pointed out in Chapter IX. To cite an example brought to our attention after that chapter was drafted, the Encyclopedia Brittanica is about to make available a computer-based historical service for teachers which will produce a text on a given topic tailored to the specific interests of the client. Here again, the traditionally passive role of the information service is radically changed, not only to supply information, but to treat and synthesize it as well.

[2] Adult Book Reading in the United States (Chicago: National Opinion Research Center, 1965), pp. 24-26.

THE EVALUATION OF NYSILL

The extent of the use of interlibrary loan in the state, as measured by the survey of libraries, now exceeds 640,000 items a year and may be expected to continue to increase rapidly in the future. Of this volume, NYSILL accounts for some 87,000 requests and is the largest organized information system presently existing in New York. In fact, NYSILL is probably the largest such service managed by any state and is only exceeded in scope, volume, and generality by national services such as those offered by the Library of Congress, the National Library of Medicine, and such private resources as Chemical Abstracts.

As an information service, NYSILL plays two roles. First, it replaces and supplements services which previously existed. For example, loans to public library patrons from the State Library are not a new feature of library services in New York, nor is the transmittal of academic requests to resources like Cornell, Columbia, or The New York Public Library. With NYSILL, however, these services are centrally controlled, and future developments along these lines may see the inclusion of more academic users, the addition of more academic resources, and the creation of formal linkages between the many different networks, lending systems, and bibliographic tools which are being created. In the long run, such developments will result in the evolution of information resources which, because of systematic linkages and interlocking services, may be radically different from preceding modes of service. More attention will be given to this trend below.

Second, NYSILL provides certain kinds of services which did not exist at all in the past. Primarily these are centered on the possibility for the use of private resources heretofore restricted to special clienteles: university students and faculty, members of professional societies, and so on. With NYSILL, it is possible for any citizen to tap such collections if his request is substantively legitimate. To date such uses of NYSILL are probably not especially pronounced, but in the long run this opening of research collections to all patrons may turn out to be the most significant aspect of the NYSILL program.

We have seen that NYSILL does provide serious materials of a research nature. The volume of loans is increasing steadily; more important, the volume of referred requests--the higher-level items--is rising very rapidly indeed. Although the speed of the service is not great, this appears to be due more to delays outside the control of the system than to slow processing. The data reviewed in this study indicate that no interlibrary loan service is capable of achieving really fast service as long as delivery depends on the use of book-rate mailing. This was confirmed, for example, in the speed experienced by academic requests sent directly to NYSILL referral centers. These required an average of about fourteen days to fill, allowing for time in the mail for delivery. The differences in speed between these requests and the items sent to, and filled by, the State Library is mainly due to the ability to reach the required library without intervening processing at a local library system or other transmission site, and not due to differences in processing speed in NYSILL. Speed in NYSILL service is, of course, a serious problem and more attention will be given to this matter below.

This study has shown that NYSILL now comes close to achieving the same rates of fill for its eligible patrons as are achieved by other resources available to libraries in New York. Seventy-five percent of all faculty requests in NYSILL are filled; 80% of all student requests are filled. In the state as a whole, 83% of all requests, regardless of requesting library or resources used, are filled; the analogous proportion for requests from academic libraries is 86%. There is still some room for improvement in NYSILL, and findings of this study suggest means by which such improvements may be made.

Finally, costs in NYSILL on a per-unit filled basis are down, mostly as a result of economies made by the State Library in its participation grants. Even without these advantages, increases in the efficiency of the use of the system have made it possible to substantially increase the number of filled referrals without markedly increasing the unit costs of fees for referral and filling.

These findings make it obvious that NYSILL should be granted permanent status. The program will continue to be experimental, in the sense that it should provide a testing ground for innovations in library service. It should be noted that NYSILL's success appears to be due as much to continuing efforts to refine and improve the service as to any single special change in procedures. While improvements in the structure and rules of NYSILL have certainly been beneficial, a large share of the credit for the overall gains in fill rates must be given to the increase in effort and experience of the people who process these requests, both at the State Library and at other cooperating institutions.

REGIONAL SERVICE

As NYSILL has developed, some doubts have been expressed about the appropriateness of a centralized system. It was suggested that local needs would be glossed over, and that a statewide network would fail to add much to what could be accomplished by emphasizing the development of regional resources. The data in this study clarify these issues and suggest that, far from creating competing services, regional and statewide services can complement one another and provide much improved overall service. The two regional systems funded by the state have experienced good patron reactions, expressed by healthy levels of volume and many instances of repeated use. Filling rates have been high, and service has been as fast as that which could be obtained by using the State Library. Costs for these networks have been moderate, although possibly some increased funding will be needed to support the overhead expenses of such services if they are to be continued. Most important of all, both local systems have shown an ability to meet the special needs of their regions.

The outcomes for these experiments indicate plainly that both regional networks deserve permanent funding. At the same time, the data suggest that additional regional networks might be justified in the future, subject to the limitations of resources. As such systems became operative, the use of area referral centers in NYSILL would be likely to become less and less necessary; indeed, ever since NYSILL began the volume and fill rates for these referral libraries has dropped, relative to overall NYSILL performance. One can envision an eventual NYSILL system in which a set of regional interlibrary loan networks will serve to screen materials for referral to the State Library, eliminating the need for area centers, causing more efficient use of the collections at Albany, and making the role of NYSILL subject libraries even more crucial than it is at present.

At this writing, however, immediate development of additional regional networks cannot be recommended. The data from this study indicate that the success of both the Buffalo and the Rochester services may be traced to circumstances which are not likely to be matched elsewhere in the state. At the former network, a heavy volume of public interlibrary loan could be effectively served by the Buffalo and Erie County Public Library, easily the largest such facility in upstate New York outside the State Library itself. At Rochester, an unusually demanding scientific and technical community is very effectively served by the University of Rochester. When other regions are considered, no similar fit of demands and resources can be anticipated. Most other regions in New York are of the Buffalo type; judging from NYSILL records, their needs are largely for expanded public library collections. This argues that the present service provided by the State Library is likely to continue to be most appropriate, and that a regional network based on university resources would not prove to meet a very high portion of the probable demand. If a region could develop a public facility like Buffalo's, then it might make a case for inserting such a resource between local libraries and the state, both to save money at the State Library and to provide faster service. However, no other region outside those within New York City (where the interlibrary loan volume is negligible) possesses public library resources of this caliber. When the new Mitchel Field library is completed, possibly that might serve as such a resource for the downstate suburban area. In short, the initial guidelines emphasized the need for academic resources at the regional level, but this now appears to have been a little misleading. Except in cases like Rochester, strong public library resources are needed as well.

It might be noted here that the state actually has three, not two, regional systems in operation: the third is formed around the State Library itself, and needs only a formal announcement and some minor changes in structure and staffing to be fully equivalent to the networks at Buffalo and Rochester. A large central collection exists; staffing for coordination could be obtained; a delivery system already operates.

The direct service for academic loans has not received the use which might have been expected. It seems that such a service is not needed by all academic libraries,and it may well be that if NYSILL service can be further improved, the need for direct recourse to subject centers will diminish. Until requesting libraries themselves decide that NYSILL is the best route, however, it makes good sense for the State Library to continue to permit alternatives. The advantages in speed are worth preserving and the benefits in good relations with the academic community are substantial.

FURTHER IMPROVEMENTS IN SERVICE

This study has identified a number of problems which need attention in order to deal with continuing difficulties in NYSILL's operations and in order to improve patterns of service. The first of these is the varying reliability of TWXed requests and the difficulty of providing complete and reliable status reports for unfilled items. Both of these problems can be solved, in part at least, by adopting and enforcing the use of a standardized TWX format such as that depicted in Chapter VIII. Although the present format is not strikingly different from the proposed revision, it carries the simple drawback of being identified with NYSILL, rather than national, practices. Consistency in such matters has proved to be very helpful in enforcing uniformity, which will be an absolute necessity if automation of NYSILL is to proceed smoothly.

The second major problem is delivery of loans. Special delivery systems appear to be too costly for NYSILL while present dependence on book-rate mail is painfully slow. It seems that the best compromise for the short run is to accept many of the delays attached to the mail service while using first-class mail to handle lightweight materials (photocopies) and exploring the use of general delivery services to reach working regional delivery systems. Through this combination of approaches, some savings in elapsed time may be effected in advance of the really substantial increases in volume which will have to precede any attempt to provide custom-tailored delivery services for NYSILL loans.

A third problem is the delay which all NYSILL requests encounter while being processed prior to receipt at the State Library. Additional studies are needed to determine the feasibility of more direct access to NYSILL for some kinds of requests. It may be possible to establish procedures to identify requests which might automatically bypass local resources. This possibility, as well as the next one discussed below, raises the problem of occasionally using high-level resources to fill requests which otherwise might have been successfully handled at lower-level collections.

In a system like NYSILL, which is based on an "indefinite routing" strategy (see Chapter IX), such inefficiencies would be a small price to pay for improved speed of service. Routing must be based on patterns of referral which will provide the best average service for all items, and not on special contingencies which apply to relatively insignificant portions of the total load.

The last significant problem relates to the need to subject the routing procedures for NYSILL referral libraries to an intensive and careful review. Operational procedures need to be created which will more rapidly identify the library to which a particular request is to be sent, while insuring that the chosen library has the best chance of filling the request. To accomplish this task, a careful review of subject responsibilities for NYSILL libraries will be needed, so that the system can take better advantage of the strengths of these collections. As this review proceeds, every effort must be made to take advantage of the expertise and experience of librarians in cooperating libraries. Drawing on this review, new subject listings for routing requests to referral libraries should be created. Present Dewey Decimal-based lists are somewhat inadequate for such purposes; what is required is a subject directory which covers the particular strengths of the libraries in NYSILL, pays attention to the problem of subject ambiguity, and allows for legitimate referrals which might not be accurately classified by any list. Any revised list should be published in thesaurus form, by both subject classes and by library, to assist the routing process. Along with better subject guidelines, provision must be made to provide better control and reporting when holdings information overrides routing decisions made by subject. These revisions should result in routing procedures which lend themselves to continual review and which can be easily automated.

To illustrate the effect of these changes, the following brief scenario has been worked out. An automated NYSILL system is assumed to exist, with linkages to other systems for some kinds of specialized, high level requests. Requests come in by TWX and are read directly into a computer-based storage system. When the incoming request contains specific holdings information (for example, a numeric code denoting a specific NYSILL subject library), this determines the routing to be used if the State Library cannot fill the request, regardless of subject identification. If no holdings data are given, the computer checks the subject class provided for the request, comparing this with routing orders provided for all subjects, and assigns the request to a particular referral library. This system provides for the difficulty of classifying subjects in several ways. First, one permissible subject code is "can't classify, but refer." These are routed, not to subject libraries, but to professional personnel at the State Library for review. Requests unfilled by what seems to be the "right" library may also be inspected on demand, and provisions may be built into the system to alert personnel whenever the fill rate falls below a predetermined level for a given combination of subject and library.

MANAGEMENT OF NYSILL AND LINKAGES WITH OTHER SERVICES

The above considerations lead to another major conclusion of the study: that increased attention needs to be given to the management of NYSILL and of its associated programs. Although the revised manual is an improvement over the 1967 version, many details remain unsettled and the manual is not especially helpful to resource libraries. No manual for these libraries will be needed, of course, if other means of periodic review and consultation can be established to coordinate the efforts of the state and its contracting institutions.

The automation of NYSILL will assist in the solution of many management problems. Even without routing built in to the system, the use of computers would provide major advantages for day-to-day control and reliable reporting of the status of requests. The administrative issues also include the need to make a careful review of the role NYSILL is to have vis-a-vis other information sources, interlibrary networks, bibliographic tools, and national services. This study has shown that a really powerful general information system could be created in New York with relatively little effort, simply by linking together existing systems and planning for those which will be established in the future. Study of these possibilities should be initiated before the patterns of service become so well established that new linkages and interfaces become difficult to make. It is definitely not expected that NYSILL should take over those services which have been created to serve special needs; the State Library would neither be in a position to manage these, nor able to justify any major role in determining their service policies. The State Library should, however, see if such resources might be used for the specialized requests which NYSILL might receive, just as SUNY-Biomedical libraries may use NYSILL to obtain non-medical items which they require.

Given the trends identified here, the State Library's present major role in planning and coordinating these services is likely to become even more important in the future. As the distinction between interlibrary loan as such and simply providing information continues to diminish, it is likely that NYSILL and other services tied to it will become the core of a relatively broad-based information system. Some possibilities for such a configuration were discussed in Chapter IX. These possibilities may seem remote. However, they grow out of a consideration of the demands which are likely to be placed on libraries, and therefore deserve more attention than utopian proposals which consider only what is technically feasible. Obviously, many kinds of services could be provided which would have little effective utility. But in the light of geometric increases in scholarly literatures, rapid growth in the educational level of the citizenry, and the trend toward greater and greater professional specialization, it seems inevitable that library services must change to meet patron needs. For example, as literature expands and physical storage becomes more difficult, browsing becomes less practical from the point of view of the librarian.

Yet scientists and other library patrons alike have repeatedly reported[3] that the material they did not seek often turns out to be the most significant. Hence the need for new kinds of services to alert users to materials available in their fields. Admittedly, these concerns are not traditionally a part of interlibrary loan but why shouldn't the interlibrary loan process play a part in providing materials which may not have been specifically requested and in making available the basic communication structures which connect patron and resource? NYSILL does not deal in information as such, but it already provides the framework for handling this additional kind of service. We would suggest that this is the next logical step in the development of the 3R's program in New York, using NYSILL both to transmit specific requests for materials and to set up communications of a more general nature between the patron and the information resources he needs to use.

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3 See, for example, The Flow of Information Among Scientists, op. cit.; Adult Book Reading in the United States, op. cit.

APPENDICES:

A. The Library Survey

B. Monitoring and Analyzing ILL

C. Interim Report on the Latter Months of NYSILL, Phase I

D. Bibliography

E. A Partial List of Libraries Using NYSILL

Again, methodology rears its ugly head. We did not begin with the intention of writing a treatise on methodology. Appearances to the contrary notwithstanding, we have tried to limit the presentation of methodological problems to the very minimum necessary for the critical reader to grasp the rationale of our procedures. The truth of the matter is, however, that many an issue ordinarily treated only verbally...turns out to hinge on principles of methodology as soon as we consider how the issue could conceivably be resolved by empirical inquiry.

--from an unpublished
manuscript by Otis
Dudley Duncan

Appendix A

THE LIBRARY SURVEY

Among questions covered by the objectives of this study was the following:

> What is the volume and what are the characteristics of academic and special interlibrary loan activity in New York State that is not channeled into the NYSILL network?

This is a very large question indeed. Academic libraries in the state are not difficult to identify, but obtaining statistical data on their operations can be surprisingly difficult. This is because a number of colleges and universities maintain decentralized library operations, and because some kinds of institutions are ambiguously defined. Special libraries present even more severe problems. In New York State there are more than 1,500 such libraries, ranging all the way from organizations which barely meet the basic criterion of "an organized collection" to highly sophisticated systems of cooperating institutions.

To handle this part of the work, it was decided to develop some sort of questionnaire and attempt to gather data by mail. The drawbacks of such an approach were fully appreciated. First, some means would be needed to reach the respondents and to insure a reasonably good sample of returns. Second, the document itself would have to be short enough to be within the limits of demands which could be placed on respondents, but at the same time all sorts of extremely complicated problems of interpretation would arise if the questionnaire did not spell out in great detail exactly what data were being requested. Allowing for these considerations, it was concluded that a questionnaire nonetheless represented the only financially practical means at hand for obtaining even the roughest kinds of ILL data. To deal with the difficulties of reporting loans, the document used several means of recording volume and outcomes. This was felt to be preferable to a single more rigorous reporting sheet, which would not apply to some libraries and which would be impractical for others.

Through error and oversight, the final document contained at least three fairly serious omissions. First, it contained no geographic question by which the location of a library could be pinned down. In analyzing returns, postmarks, comments on returns, and an occasional note enclosed with a completed questionnaire enabled most libraries to be identified as to location, but a number of returns could not be so identified. Second, ambiguity in the wording of questions about resources used made it difficult in some cases to make sense of the reported volume of interlibrary loan at resource institutions. Careful review of the individual returns enabled the consultants to repair this error of questionnaire design for most respondents, but future attempts to gather this sort of data should not repeat the format used here. And third, the questionnaire provided no sure way to separate public library loans serviced by a local library system from those serviced by a statewide network. This dilemma was handled by using statistics from the State of New York on public interlibrary loan volume as a check on data from the questionnaire itself.

For all these problems, the survey operation appears to have been well worth the effort. The reader should bear in mind that much of the data gathered did not exist at all prior to this study, and that obtaining such statistics in a more reliable fashion would, in most cases, require actually having personnel monitor ILL over several months' time in each responding library--a task which would be so expensive as to render such a survey completely unrealistic. For the moment, the data should be viewed as an approximation which, although worthy of improvement, nonetheless provides some rough benchmarks by which to judge interlibrary loan in the State of New York.

The Sample Frame

To reach the respondents, mailing lists maintained by the R. R. Bowker Company were used. These lists, while incomplete (for example, they include some small company libraries but certainly do not include all of them), were the best available and, in fact, the survey could not have been done without them. The convenience of the lists was such that it was possible to include public libraries in the survev. thus allowing the data for resources to reflect public library ILL as well as that of academic and special libraries. The only kind of library in the state not included in this survey is the school library.

A total of 2,474 questionnaires were mailed (some institutions received more than one, due to departmentalization). It was assumed from the beginning that only a fraction of the respondents would reply. The efforts to make the questionnaire a feasible working document did not produce a form which could be answered in a few moments; replies would take time, and not all librarians would have this time. Furthermore, the form asked that loans during the week of November 17, 1968 be monitored, to provide a check on other data and to obtain some examples of typical requests. The choice of this week was mandated by scheduling requirements for the study; but it happened to be the same week of the meetings of the New York Library Association, and would thus cause some difficulties for small institutions which might send their ILL personnel to the meetings.

A review of possible reasons for nonresponse indicated that many biasing factors could be expected to cancel each other out. Nevertheless, careful control of nonresponse was needed, because one aim of

Table A.1

DISTRIBUTION OF LIBRARIES IN NEW YORK STATE, BY TYPE, REGION AND SIZE (1964)

Type and Size[a]	Region[b]				Total
	New York City Metropolitan	Upstate Eastern	Upstate Central	Upstate Western	
Public Libraries:					
Less than 100,000 volumes	179	159	201	181	720
100,000-499,000 volumes	14	4	3	4	25
500,000-999,000 volumes	-	-	1	-	1
1,000,000 volumes or more	3	1	-	2	6
Total Public Libraries	196	164	205	187	752
Academic Libraries:					
Less than 100,000 volumes	73	28	18	27	146
100,000-499,000 volumes	17	7	8	8	40
500,000-999,000 volumes	3	-	1	1	5
1,000,000 volumes or more	2	-	-	2	4
Total Academic Libraries	95	35	27	38	195
Other Libraries:					
Law	56	9	9	5	79
Medical	116	15	17	21	169
Other Special	671	60	50	73	854
Total Other Libraries	843	84	76	99	1,102
Total, All Libraries	1,134	283	308	324	2,049

a. Size groups were coded in thousands of volumes.

b. Derived from postal ZIP code. New York City Metropolitan includes all locations with codes beginning with "10" or "11"; Upstate East, "12"; Upstate Central, "13"; Upstate West, "14." For Law, Medical and Other Special Libraries, Region was dichotomized into New York City Metropolitan vs. all Upstate.

Table A.2

AVERAGE NUMBER OF VOLUMES FOR NEW YORK LIBRARIES, BY TYPE, REGION AND SIZE (1964 DATA: NUMBER OF LIBRARIES REPORTING VOLUMES IN PARENTHESES)[a]

Type and Size	Region				Total	Total Number of Volumes in New York State
	New York City Metropolitan	Upstate Eastern	Upstate Central	Upstate Western		
Public Libraries:						
Less than 100,000 volumes	26,380 (164)	16,400 (110)	16,000 (123)	15,630 (153)	19,070 (550)	-
100,000-499,000 volumes	179,570 (14)	212,750 (4)	199,000 (3)	176,250 (4)	186,680 (25)	-
500,000-999,000 volumes	-	-	507,000 (1)	-	507,000 (1)	-
1,000,000 volumes or more	6,172,670 (3)	3,950,000 (1)	-	1,730,500 (2)	4,321,500 (6)	-
Total Public Libraries	140,100 (181)	57,430 (115)	24,190 (127)	41,250 (159)	71,470 (582)	41,595,540[b]
Academic Libraries:						
Less than 100,000 volumes	34,650 (71)	26,920 (26)	39,000 (17)	39,720 (25)	34,650 (139)	-
100,000-499,000 volumes	205,650 (17)	177,140 (7)	173,000 (8)	110,880 (8)	175,180 (40)	-
500,000-999,000 volumes	669,330 (3)	-	761,000 (1)	541,000 (1)	662,000 (5)	-
1,000,000 volumes or more	2,553,000 (2)	-	-	1,962,500 (2)	2,257,750 (4)	-
Total Academic Libraries	140,540 (93)	58,790 (33)	108,000 (26)	176,280 (36)	128,530 (188)	24,163,640

(continued)

Table A.2
(continued)

Type and Size	Region				Total	Total Number of Volumes in New York State
	New York City Metropolitan	Upstate Eastern	Upstate Central	Upstate Western		
Other Libraries:						
Law	34,330 (54)	25,330 (9)	28,220 (9)	61,500 (4)	33,970 (76)	-
Medical	15,510 (103)	9,920 (12)	11,070 (15)	9,950 (19)	13,900 (149)	-
Other Special	12,820 (612)	11,190 (52)	11,810 (43)	10,750 (61)	12,490 (768)	-
Total Other Libraries	14,690 (769)	12,720 (73)	13,850 (67)	12,990 (84)	14,340 (993)	14,239,620
Total, All Libraries	47,670(1,043)	42,890(221)	30,950(220)	50,160(279)	45,380(1,763)	80,004,940[c]

a. See Table A.1 for notes on categories. Libraries unreported on volumes were placed in "less than 100,000" volume category for size; hence, means do not include all cases.

b. The 25th edition of the *American Library Directory* reports 44,250,835 volumes in public libraries. This may include libraries not entered in the *Directory* or may count items excluded in Nelson tabulations.

c. Will not add to exact total, due to rounding.

the survey was to produce volume estimates of total ILL in the state. These would demand weighting of returns to allow a portion of the libraries in New York to stand for all libraries. To make this weighting possible, every institution in the American Library Directory (25th edition; the 1969 Directory was not available in time for this work) was coded and tabulated to produce a distribution of the possible respondents. To our knowledge, this information has never been available for all libraries in the state in the past, and it is reproduced here both to illustrate sampling decisions and to make the data available to the profession. Table A.1 reports the number of libraries in the state according to size, library type, and geographic location. Public library branches are not counted separately; thus the Brooklyn Public Library and its branches appear as a single entry. Even allowing for this, libraries in the state are heavily concentrated in the New York metropolitan region; the great number of small upstate institutions is not sufficient to counteract the concentration of population in the area of New York City. This is even more apparent in Table A.2,which reports the average number of volumes held by each type of library. To calculate the total volumes available, this average may be multiplied by the number of institutions entering into each figure. Doing so for New York City and the surrounding area, we find that over 60% of the volume resources of the entire state are located in and nearby the downstate metropolitan region. The same conclusion applies to public library circulation, shown in Table A.3. Finally, Table A.4 shows the distribution of professional personnel reported in the Directory for these libraries. The total is almost certainly a substantial underestimation. Nonetheless the pattern of employment is probably quite valid; again, more than 60% of the librarians in the state work in the New York metropolitan area.

The reader may well inquire how reliable these data are, since it reflects information in the 1966-67 Directory which was, in turn, gathered for the 1964 survey year. Certainly libraries have increased in size since that time, and some new libraries have gone up. In general, however, it would take a change of truly enormous proportions to have much of an effect on the overall pattern of institutional variation. If some libraries have gotten larger, for example, so have others; if a major portion of service was concentrated in the downstate urban area in 1964, it is still so concentrated. For the most part, the very fact that there are so many libraries in the state means that change in a few institutions does not have much effect on the overall group. It ought to be noted, however, that a number of libraries not included in the Directory have been inserted into the sample frame; for the most part, these are small public libraries which were using NYSILL. In this respect, the listing is more complete than the use of 1964 data from the Directory would imply.

The returns in each library type, size and region category were weighted to approximate the total number of such libraries in the

Table A.3

AVERAGE CIRCULATION FOR PUBLIC LIBRARIES IN NEW YORK STATE, BY TYPE, REGION AND SIZE (1964)[a]

Size	Region				Total	Total Circulation in State
	New York City Metropolitan	Upstate Eastern	Upstate Central	Upstate Western		
Less than 100,000 volumes	91,850(157)	34,890(109)	36,130(119)	49,990(147)	56,150(532)	29,871,800
100,000-499,000 volumes	607,360 (11)	640,000 (3)	398,330 (3)	541,750 (4)	569,660 (21)	11,962,860
500,000-999,000 volumes	-	-	1,669,000 (1)	-	1,669,000 (1)	1,669,000
1,000,000 volumes or more	10,677,330 (3)	220,000 (1)	-	4,466,500 (2)	6,859,160 (6)	41,154,960
Total	310,720(171)	52,590(113)	58,240(123)	120,580(153)	151,230(560)	-
Total Circulation	53,133,120	5,942,670	7,163,520	18,448,740	-	84,688,800[b]

a. Number of cases responding in parentheses; see Table A.1 for defining notes for these categories.

b. Will not add to exact total due to rounding. The 25th edition of the *American Library Directory* reports a state-wide public library circulation of 82,255,789. Discrepancies are due to distinctions in procedure and the inclusion of branch or department circulation in the Nelson data (if available and if excluded from totals).

Table A.4

AVERAGE NUMBER OF PROFESSIONAL POSITIONS[a] IN NEW YORK LIBRARIES, BY TYPE, REGION AND SIZE (1964 DATA)[b]

Type and Size	Region				Total	Total Number of Positions in New York
	New York City Metropolitan	Upstate Eastern	Upstate Central	Upstate Western		
Public Libraries:						
Less than 100,000 volumes	2.2 (167)	1.4 (110)	1.3 (123)	1.4 (155)	1.6 (555)	888
100,000-499,000 volumes	6.9 (14)	13.5 (4)	4.7 (3)	7.5 (4)	7.8 (25)	195
500,000-999,000 volumes	-	-	19.0 (1)	-	19.0 (1)	19
1,000,000 volumes or more	90.0 (3)	10.0 (1)	-	40.5 (2)	60.2 (6)	361
Total Public Libraries	4.0 (184)	1.9 (115)	1.5 (127)	2.0 (161)	2.5 (587)	1,468[c]
Academic Libraries:						
Less than 100,000 volumes	2.6 (72)	2.2 (26)	3.4 (17)	3.2 (24)	2.7 (139)	375
100,000-499,000 volumes	7.8 (17)	5.1 (7)	4.1 (8)	4.6 (8)	5.9 (40)	236
500,000-999,000 volumes	14.0 (3)	-	28.0 (1)	16.0 (1)	17.2 (5)	86
1,000,000 volumes or more	30.5 (2)	-	-	25.0 (2)	27.8 (4)	111
Total Academic Libraries	4.5 (94)	2.8 (33)	4.5 (26)	5.2 (35)	4.3 (188)	808[c]
Other Libraries:						
Law	1.4 (54)	1.0 (9)	1.3 (9)	1.8 (5)	1.4 (77)	108
Medical	1.4 (111)	1.5 (13)	1.4 (16)	1.2 (19)	1.4 (159)	223
Other Special	1.5 (652)	1.5 (58)	1.4 (46)	1.3 (68)	1.5 (824)	1,236
Total Other Libraries	1.5 (817)	1.4 (80)	1.4 (71)	1.3 (92)	1.5 (1,060)	1,590[c]
Total, All Libraries	2.2 (1,095)	1.9 (228)	1.8 (224)	2.2 (288)	2.1 (1,835)	3,854[c,d]

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a. From the 25th edition of the *American Library Directory*. Positions were counted whether filled or not. Ambiguous positions were *counted*.

b. Number of cases reporting in parentheses. See Table A.1 for conventions.

c. Will not necessarily add to exact total due to rounding.

d. A gross underestimation. Compare the number of persons in New York reporting themselves in the U. S. Census as "librarian": 1950=6,646; 1960=9,008. This may not include school librarians; if it does, that would account for some of the discrepancy, but neither the several coding guides published nor Bureau of the Census personnel are able to say with certainty that such persons were coded "librarian" and not "teacher." Furthermore, the number of librarians is almost certainly underestimated by positions reported in the *Directory*. With all these drawbacks, the data here at least begin to show the way in which professionals are distributed to libraries in the state.

state. For example, there were 41 returns from academic libraries with less than 100,000 volumes in the upstate eastern region. The weight used is 159 over 41, or 3.88. Table A.5 reports the number of libraries responding in each category (some possible combinations of type, size and region have been collapsed) and the weight assigned to each. It is apparent that the survey respondents represent a broad selection of New York libraries; the only major group with no respondents is that one which includes the four very large upstate public libraries: the Rochester Public Library, the Buffalo and Erie County Library, the Syracuse Public Library and The New York State Library. Questionnaires were received from at least one of these institutions but were not used because data reflected both the main library and system affiliates. Using such responses raised the possibility of counting a given loan twice, once when it passed through the originating library and again when it was handled at the system center. For this reason all returns from local systems were excluded unless they reported loans originated at such libraries. It should be emphasized that these problems reflect the inadequacies of the questionnaire design, and not any lack of effort on the part of respondents. In each of these cases alternative sources of data were available and were used to assist the analysis of ILL.

For all other categories the answers have been weighted to allow responding institutions to represent all libraries of a similar size, type, and geographic region. Bias incurred by disproportionate response from a particular type, size, or regional library has been controlled by the weighting procedure, but within these categories other distortions could be retained in the data. For example, if libraries with more professional staff were more likely to respond, the data will favor such libraries. We believe that such influences are relatively minor, however.

The overall rate of response shown in Table A.5 is 27%. This is based only on the number of returns which were used; actual rates of cooperation were somewhat higher. Response rates for academic libraries were considerably higher than for other kinds of libraries: 57% of all possible respondents, or almost exactly the same rate as was experienced for a much simpler and shorter questionnaire on the same topic used for the previous NYSILL study. A few of these returns are for divisions or departments of a decentralized library, rather than for the entire institution; on the other hand some departmental returns from academic centers classed themselves as special libraries and were treated accordingly, and in many cases questionnaires sent to departments were routed to a central ILL loan desk, resulting in a single return for the entire institution.

The existence of the list of New York libraries, enumerated to isolate all institutions with particular characteristics, means that in the future it no longer should be necessary to poll all possible libraries on such questions as these. Instead sampling will become possible.

Table A.5

DISTRIBUTION OF RESPONDING LIBRARIES, PERCENT RESPONDING, AND WEIGHT, FOR CATEGORIES OF LIBRARIES IN NEW YORK STATE: INTERLIBRARY LOAN QUESTIONNAIRE AND SURVEY

Category[a]	Number in New York State	Number Responding	Percent	Weight
Public Libraries:				
Less than 100,000 volumes:				
New York City Metropolitan	179	64	36%	2.80
Upstate Eastern	159	41	26	3.88
Upstate Central	201	44	22	4.57
Upstate Western	181	17	9	10.65
100,000-499,000 volumes:				
New York City Metropolitan	14	9	64	1.56
All Upstate	11	3	27	3.67
500,000 volumes or more:				
New York City Metropolitan	3	2	67	1.50
All Upstate	4	0	0	–[b]
Academic Libraries:				
Less than 100,000 volumes:				
New York City Metropolitan	73	39	53%	1.87
Upstate Eastern	28	13	46	2.15
Upstate Central	18	13	72	1.38
Upstate Western	27	13	48	2.08
100,000-499,000 volumes:				
New York City Metropolitan	17	7	41	2.43
All Upstate	23	21	91	1.10
500,000 volumes or more:				
New York City Metropolitan	5	3	60	1.67
All Upstate	4	3	75	1.33
Other Libraries:				
Law: NYC Metropolitan	56	10	18%	5.60
All Upstate	23	7	30	3.29
Medical: NYC Metropolitan	116	33	28	3.52
All Upstate	53	23	43	2.30
Other Special: NYC Metropolitan	671	128	19	5.24
Upstate Eastern	60	22	37	2.73
Upstate Central	50	14	28	3.57
Upstate Western	73	25	34	2.92
Total, All Libraries	2,049	554[c]	27%	–[d]

a. For definitions of categories, see Table A.1. Several combinations are collapsed together for weighting purposes.

b. No weight possible.

c. A number of additional libraries responded but could not be categorized on location, size, or both. These were excluded from the analysis.

d. Not applicable.

Equal-probability sampling, the only approach offering sufficient precision for most library questions, has been impossible in the past because no overall list existed from which to draw the sample. (Sampling from the American Library Directory is not sufficient; the sample must be stratified to insure that all groups of interest are included. For example, a purely random sample of the entire list would result in a probability of only one in nearly 700 of inclusion of one of the three major public libraries in New York City--and no library study in this state should exclude such an important class of institutions.) The practical implications of this option for the profession are considerable. Surveys take time and money, for both those who conduct them and those who respond to them; and sampling offers a way to make a major reduction in this burden. Moreover, the existence of data in the sample frame on personnel, size, and other salient characteristics of the libraries means that valid statewide samples may also be taken of library users, professional librarians, or of institutions of a particular type or in a given geographic area.

A Note on Library Statistics

The work reported herein has taken note of a number of reviews of the problems of dealing with statistical data on libraries. Primary among these is the ALA handbook on concepts and terminology (Library Statistics, 1966); Tauber and Stephens, Library Surveys (1967); "The Problems of Academic Library Statistics" by Radford (1968); and William Baumol's review of library statistics conducted for the National Advisory Commission on Libraries (1967).

The several reviews are of very uneven quality. All contain useful suggestions, but in general Baumol's complaint applies to this literature as a whole: ". . . the issues involved in the collection of library statistics have been explored carefully and intelligently. But the data themselves are in a deplorable state." To which we would add: and so is the state of the art of methods used to analyze these statistics.

In this study a primary goal of the investigators has been to improve this state of affairs. We have not hesitated to use a wide variety of methods, we have drawn on a variety of data sources and, above all, we have attempted to be relevant, and not simply to present a mechanical series of tabulations. It will be up to the readers of this report to assess the degree of our success, and we invite criticism so that future work can build on this attempt.

The questionnaire used in this survey, along with its cover letter is reproduced below.

NELSON ASSOCIATES, INCORPORATED • 845 THIRD AVENUE, NEW YORK, N.Y. 10022 • 212 HA 1-3110

November 8, 1968

Dear Librarian:

The New York State Library has commissioned Nelson Associates to conduct a broad study of interlibrary loan (ILL) borrowing by New York libraries. The basic source of data will be the enclosed questionnaire, which is being sent to every library in New York. We hope to obtain some knowledge of information needs in the state, the resources which are used to satisfy those needs, and the problems inherent in the use of those resources.

Some small libraries may not use interlibrary loan facilities very often. Nevertheless, if you have made any requests at all in 1968, we would appreciate your completing this questionnaire. If you made no use whatever of interlibrary loan this year, complete only the first section of the form.

The questionnaire asks for four kinds of information. First, please indicate the basic descriptive characteristics of your institution. Second, we need to know your overall volume of interlibrary borrowing and the number of these requests which are filled satisfactorily. Some libraries are unable to keep detailed statistics of this kind, and in such cases we ask only that you provide your best possible estimate. Third, indicate where your requests are directed, and how satisfied you are with the service at each resource. Finally, we need to know about the individual characteristics of the items which you submit as interlibrary loans.

This asks a good deal, and in recognition of this fact we have made every effort to limit the burden this questionnaire will place on you. Cooperation with this project will, we hope, make it possible to considerably increase the number of resources open to New York citizens, and to provide faster access to those resources.

If any problems arise, please do not hesitate to call us to obtain assistance (collect: 212/421-3110). Please return the completed questionnaire by December 20, 1968; an addressed, stamped envelope is provided for your convenience.

Members of the survey team will visit selected libraries in the coming months; possibly we will have the opportunity to meet with you for more detailed discussions. In addition to the data gathered from these questionnaires and from interviews, requests received through NYSILL in late November and early December will have postcards attached. We would appreciate your cooperation in supplying the needed information on the postcards and mailing them to Nelson Associates.

Yours truly,
NELSON ASSOCIATES, INC.

Richard A. Ellis
Nina J. Root

MANAGEMENT CONSULTANTS • CABLE ADDRESS: NELSONCONS • BRANCH OFFICE: WASHINGTON, D.C.

INTERLIBRARY LOAN IN THE STATE OF NEW YORK

Instructions: Nearly every item in this form can be completed by either writing in a number (e.g., "How many items did you request on interlibrary loans in 1967?" 3,500) or by circling a number which denotes a fixed response:

Example: You work in...

...a library in New York.............................. [✓ 1]
...some other place............................... 2

These kinds of questions have been used to facilitate machine processing for this large-scale survey. Some items may seem ambiguous; if so, please pick the response which seems best, and feel free to add written comments in explanation. All returns will be reviewed prior to machine operations, so we will be able to pick up the special comments you may make.

Definition of interlibrary loan: For the purposes of this study, a uniform definition of ILL items is needed. Our definition follows ALA practices and admits any request which demands processing as an interlibrary loan by both initiating and receiving institutions.

Example: request from the Nassau County Library System headquarters to the New York State Library--should be included.

Example: request to the main collection of the Yonkers Public Library from a branch of that library--should not be included, part of normal circulation.

Example: request from Columbia University (Butler) to the Library of Congress--should be included.

Example: request from Xerox Corporation to Harvard University--should be included.

Example: request from a physicist at Brookhaven is passed to a librarian, who makes up a list of such items and then travels personally to the New York Public Library, where she searches and checks items out--should not be included, since items were not treated as interlibrary loans at the receiving library.

Please return this questionnaire to Nelson Associates, Inc., 845 Third Avenue, New York, New York 10022, by December 20, 1968. The late date is intended to provide sufficient time for follow-up on loans described in Part IV, below.

PART I: ABOUT YOUR LIBRARY *(EVERYONE PLEASE COMPLETE)*

DO NOT WRITE IN THIS SPACE

1. Which of the following best describes your library? *(CIRCLE ONE)*

Public Library.. 1 — 6/R

Academic:
  University Library............................... 2
  Four-year College Library........................ 3
  Two-year College Library......................... 4
  Other Academic................................... 5
    (If Other Academic, please specify: ______________________)

Special Libraries: — 7/R
  Business, Industrial............................. 1
  Medical, Hospital, Nursing....................... 2
  Law.. 3
  Historical....................................... 4
  Museum... 5
  Religious.. 6
  Scientific, Technical............................ 7
  Other Libraries.................................. 8
    (If so, please specify: __________ ______________________)

DO NOT WRITE IN THIS SPACE

2. What is the size of your collection? *(WRITE IN NUMBER)*

TOTAL VOLUMES:____________________ 8-14/RR

TOTAL PERIODICAL TITLES:____________________ 15-20/RR

3. Have you submitted any interlibrary loan requests to other libraries in 1968? (Consider your use of resources outside New York as well as within the state; see definition above. *CIRCLE ONE*)

Yes.. 1 21/R
No.. 2

IF YOU HAVE NOT MADE ANY REQUESTS FOR INTERLIBRARY LOANS THIS YEAR, YOU MAY IGNORE THE REST OF THE QUESTIONNAIRE. IF YOU HAVE MADE REQUESTS, PLEASE COMPLETE PARTS II, III, AND IV.

PART II: VOLUME OF INTERLIBRARY LOAN REQUESTS AT YOUR LIBRARY

1. How many interlibrary loan requests did you make in 1966? (From all sources, both in and out of state; *WRITE IN NUMBER*)

NUMBER OF ITEMS____________________ 22-26/RR

Of these requests in 1966, about how many were filled? *(WRITE IN NUMBER)*

NUMBER FILLED____________________ 27-31/RR

2. How many interlibrary loan requests did you make in 1967? (From all sources, both in and out of state; *WRITE IN NUMBER*)

NUMBER OF ITEMS____________________ 32-36/RR

Of these requests in 1967, about how many were filled? *(WRITE IN NUMBER)*

NUMBER FILLED____________________ 37-41/RR

3. How many interlibrary loan requests did you make in 1968 from January through October (first ten months)? (From all sources, both in and out of state; *WRITE IN NUMBER*)

NUMBER OF ITEMS____________________ 42-46/RR

Of these requests in 1968, about how many were filled? *(WRITE IN NUMBER)*

NUMBER FILLED____________________ 47-51/RR

PART III: INTERLIBRARY LOAN RESOURCES USED BY YOUR LIBRARY

1. Which interlibrary loan networks have you used in 1968--e.g., the New York State network (NYSILL), SUNY-Biomedical, the Rochester Reference and Resource Council Network, etc.? Exclude any direct use you may make of libraries included in these networks. List a maximum of four; if you used more than four, list those four most frequently used. (WRITE IN NETWORK NAME, APPROXIMATE PERCENTAGE OF YOUR CURRENT (FALL, 1968) LOAD BEING SENT TO THIS SOURCE, AND CIRCLE ONE CHOICE TO INDICATE YOUR SATISFACTION)

NETWORK:	PERCENTAGE OF CURRENT ILL LOAD SENT HERE:	*(CIRCLE ONE)* SATISFACTORY SERVICE:	UNSATISFACTORY SERVICE:	
A)		1	2	52-56/RR
B)		1	2	57-61/RR
C)		1	2	62-66/RR
D)		1	2	67-71/RR

Continued on next page →

DO NOT WRITE IN THIS SPACE

2. Which other libraries have you used for ILL requests in 1968--e.g., the Library of Congress, Columbia University, N.Y. Academy of Medicine, Harvard, etc.? Include any direct use you may make of libraries which happen to belong to interlibrary loan networks. List a maximum of six; if you used more than six, list those six most frequently used. (WRITE IN LIBRARY NAME, APPROXIMATE PERCENTAGE OF YOUR CURRENT (FALL, 1968) LOAD BEING SENT TO THIS SOURCE, AND CIRCLE ONE CHOICE TO INDICATE YOUR SATISFACTION)

LIBRARY:	PERCENTAGE OF CURRENT ILL LOAD SENT HERE:	(CIRCLE ONE) SATISFACTORY SERVICE:	UNSATISFACTORY SERVICE:	
A)		1	2	72-76/RR
B)		1	2	BEGIN DECK 2 6-10/RR
C)		1	2	11-15/RR
D)		1	2	16-20/RR
E)		1	2	21-25/RR
F)		1	2	26-30/RR

3. Which non-library services did you use for research and reference information in 1968, e.g., Institute for Scientific Information, Chemical Abstracts, etc.? List a maximum of four; if you used more than four, list those four most frequently used. (WRITE IN SERVICE NAME, APPROXIMATE PERCENTAGE OF YOUR CURRENT (FALL, 1968) LOAD BEING SENT TO THIS SOURCE, AND CIRCLE ONE CHOICE TO INDICATE YOUR SATISFACTION)

SERVICE:	PERCENTAGE OF CURRENT ILL LOAD SENT HERE:	(CIRCLE ONE) SATISFACTORY SERVICE:	UNSATISFACTORY SERVICE:	
A)		1	2	31-35/RR
B)		1	2	36-40/RR
C)		1	2	41-45/RR
D)		1	2	46-50/RR

4. Do you have access in your own library to a teletype? *(CIRCLE ONE)*

No.. 1

Yes... 2

51/R

IF YES: Do you use this machine to transmit requests to other libraries? *(CIRCLE AS MANY AS APPLY)*

No.. 1

Yes: to the New York State network (NYSILL).......... 2

Yes: to other networks or services.................. 3

Yes: to other libraries............................. 4

52/R

5. Were you aware of the existence of the New York State network (NYSILL)? *(CIRCLE ONE)*

Yes: knew about this in 1967........................ 1

Yes: knew about this by 1968........................ 2

No: haven't heard about this before................. 3

53/R

6. Before you submit a request to a particular source, are you able to...*(CIRCLE AS MANY AS APPLY)*

...check to see if this source actually holds the item.. 1

...verify the request for complete bibliographic citation.. 2

...see that request adheres to the limitations of the ALA Code.. 3

...none of these.. 4

54/R

DO NOT WRITE IN THIS SPACE

7. If a resource library notifies you that it cannot fill a request, what do you do next? *(CIRCLE AS MANY AS APPLY)*

Resubmit request to another source	1	55/R
Keep information about request on file for future use	2	
Pass information about request on to patron	3	
None of the above	4	

8. FOR MEDICAL LIBRARIES ONLY: Have you used the New York State (NYSILL) network to make "urgent" medical interlibrary loan requests? *(CIRCLE ONE)*

No	1	56/R
Yes: service was satisfactory	2	
Yes: but service was not satisfactory	3	

If service was not satisfactory, why not?

____

____

PART IV: CHARACTER OF INTERLIBRARY LOAN REQUESTS AT YOUR LIBRARY

During the week beginning November 17, 1968, we ask that you keep a more detailed record of your interlibrary loans. Such information is badly needed to establish appropriate systems and resource centers both in and outside the state. By using only data from a single week (and using a simple sampling approach) we hope to limit the burden of this questionnaire.

THE INFORMATION BELOW APPLIES TO REQUESTS INITIATED DURING THE WEEK OF NOVEMBER 17. WE ARE ALLOWING APPROXIMATELY ONE MONTH FOLLOW-UP TIME; THUS ON DECEMBER 16 YOU SHOULD CUT OFF THIS OBSERVATION AND TELL US, FOR THAT DATE, HOW MANY OF THE ITEMS ORIGINALLY REQUESTED HAVE BEEN FILLED, HOW MANY HAVE BEEN GIVEN UP, AND HOW MANY ARE STILL PENDING.

1. For the week of November 17-23, how many requests were sent to... *(WRITE IN NUMBER)*

A) The New York State network (NYSILL) or either of the two state-funded regional networks (Western New York Library Resources Council network, Rochester Reference and Resource Council network): ______________ 57-59/RR

B) All other sources within New York State: ______________ 60-62/RR

C) All other sources outside New York State: ______________ 63-65/RR

2. For these requests, by December 16, how many had been filled by... *(WRITE IN NUMBER)*

A) NYSILL or the two regional networks: ______________ 66-68/RR

B) All other sources within New York State: ______________ 69-71/RR

C) All other sources outside New York State: ______________ 72-74/RR

3. For these requests, by December 16, how many were... *(WRITE IN NUMBER)*

A) Given up: sent to one or more resources and reported not fillable: ______________ 75-77/RR

B) Pending: sent to one or more resources, final outcome unknown on December 16 ______________ 78-80/RR

4. Of the items requested during the week of November 17-23, please pull every fifth request instituted and record the following information. Do not record more than 20 items; if during the week you instituted less than five, select one at random. If you sent an item to more than one center, please do not record it as a new request; but use another line to add in the fact that it has been sent to a new library. Examples for two items appear on the first three lines.

Continued on next page →

CHECK ONE:

BOOK	PERIODICAL	AUTHOR OF ARTICLE OR BOOK	TITLE OF ARTICLE OR BOOK	IF PERIODICAL, TITLE; IF BOOK, PUBLISHER	VOLUME/ ISSUE OR DATE	SOURCE: REQUESTED FROM:	DATE OF REQUEST:	IF RECEIVED, DATE; IF NOT, STATUS ON DEC. 16 (NOT FILLED OR PENDING)
✓		Horwill, Herbert W.	Usages of the American Constitution	Oxford	1925	N.Y.U.	11/20	Not filled
✓		"	"	"	"	Yale	11/23	11/28
	✓	Spaeth, Joe L.	Occupational Prestige Expectations Among Male College Graduates	American Journal of Sociology	Vol 73:5 March 68	Brooklyn Public Lib.	11/18	Pending

This completes the questionnaire. Our deepest appreciation is extended to you for taking your time and effort. If you have any further comments or observations, we would be very interested in having them.

Nelson Associates, Inc., 845 Third Avenue, New York, New York 10022

Appendix B

MONITORING AND ANALYZING ILL REQUESTS

A complete review of all materials appropriate to this appendix would constitute a history of this study and would be far too bulky for inclusion here. Instead, it is hoped that the information below will help readers gain some knowledge of the workings of the system which has been established to handle data on loans, and assist readers in dealing with some of the analytical techniques used in this study.

KINDS OF DATA USED

Information about loans came, essentially, from two kinds of records: the individual ALA forms, teletyped records, or other papers which were made out for requests and, for NYSILL and the regional network at Buffalo, "control sheets" which constituted a single centralized record of all loans handled. In addition, a postcard was used for a short period in the middle of the survey to pick up information on the time lapse between sending material out of a NYSILL resource library and receipt of material at the originating library. Regardless of the information source, data to be recorded fell into certain easily established categories: information about the request itself (citation, type of patron, verification, and so on) and information about its handling (resource libraries and outcomes at each). This information was categorized and a coding system was worked out which would cover any possible item. The specifications for codes are reproduced below; these serve to provide an explicit definition of the source of most variables used in this study.

In the case of NYSILL and the regional system at Buffalo, the control sheets were used to take a 10% systematic sample: every tenth item was coded. In the case of Rochester requests, every tenth request form sent to Nelson Associates was recorded. In either case, these samples may be treated as equivalent to a purely random selection of 10% of all cases, since inspection of the data shows that no particular ordering within the groups of ten occurred (see Leslie Kish, Survey Sampling, New York: John Wiley, 1967, pages 113-127). Once a request was sampled, it was retained even if substantial amounts of data turned out to be unavailable—as could happen, for example, when most information was taken, not from the control sheet, but from the teletyped NYSILL records. Such records were pulled for every sampled request and matched by hand with control sheet data. When requests were sampled at the local (regional) level but were known to have been sent to NYSILL, the NYSILL record was pulled and such additional information as was available was recorded.

The survey period covered all requests received at the State Library during October-December 1968. For regional monitoring, the period of interest was the same and covered all items sent by December 31 to a system-supported library (at Rochester), or all items sent to the system headquarters (at Buffalo). Requests entering late in the study period might not be completed until mid-January, of course; as it turned out, however, nearly all requests sampled were completed in time for coding, which was cut off on January 20, 1969.

MACHINE PROCESSING OF ILL DATA

The coding specifications called for a maximum of five keypunched cards to be produced for each case; most cases would have fewer than five. The first of these contained data on authors; the second, titles; the third, date of publication and a periodical title for periodicals, a publisher and place of publication for monographs. The fourth card contained most of the tabulated data of the study: patron status, originating library identification, status at local referral libraries, status at the State Library, and so on. The fifth card was used only for cases sent to NYSILL referral centers and recorded outcomes there.

Upon keypunching of all cards, a computer file was established with provision for additional manipulation of the data. Elapsed times were calculated by machine, as were the reduction of Dewey Decimal Classification codes to subject categories approximating those used for this study (the two sets of codes were required because DDC does not provide a good fit to present-day divisions of labor in the academies, and because not all requests have such codes given--see Chapter 4). The computer was also used to provide data describing originating libraries, matching each with its entry in the Nelson Associates sampling list of all libraries in New York State (see Appendix A). A set of preliminary tables was produced in December to insure that specifications were adequate and to enable the consultants to anticipate requirements for final analysis. Final runs were produced in January shortly after the coding procedure ended.

For citations, the coding cutoff was moved up to eliminate December requests. This results in "purer" lists of requests because the atypical Christmas-New Year's holiday load is not included. The lists of requests were obtained by defining the categories of interest, sorting the computer file accordingly, and then printing out the contents of cards one through three (authors, titles, and citations) for each group. The shorter lists reproduced in this report are samples of these computer-based printouts.

RATIONALES FOR VARYING ANALYTIC METHODS

Other data in the report are based on more traditional survey techniques. Information has been presented in several ways, usually in the form of numbers of requests, percentages, or simple correlation coefficients. Each of these modes has its own rationale, as follows:

1. Where the aim was to inform the reader about the general flow of all requests throughout a system, simple numbers of items were presented. This has the advantage of providing an immediate feeling for volume and relative loads at different libraries without incurring the problems of ambiguity which would be introduced by more complex statistics. For example: Which is the "true" percentage of items filled at a referral library, the percent of all requests, the percent of all referrals, or the percent of all items sent to that library? The answer is that all are true and each is appropriate for certain purposes. To present all possibilities would have meant producing still more tabulated matter for a report already overly packed with numbers; so it was decided to stick to simple volume wherever possible in tables, and to provide the interpretive percentages in the text of the study.

2. Where the aim was to provide descriptive information about certain kinds of requests, percentages were used. These have the advantage of being immediately understood, not too ambiguous, and compact in presentation. In some cases the same basic information might be used in more than one way. For example, suppose of 100 requests 10 were eligible and for science materials, 20 were eligible and for other subjects, 30 were not eligible and requested science items, and 40 were neither eligible nor in the science fields. In such a case the reader might be interested in the fact that although 40% of all items would appear to be for science, somewhat fewer of the eligible requests (33%) were for science; and he might also wish to know that 25% of all science requests were eligible for referral, as opposed to 33% of all other kinds of requests. Where this type of situation existed, more than one table was prepared from the same data.

3. Where the aim was to substantiate an association between two factors, correlations were used. For example, in dealing with the amount of agreement between DDC codes and the "Nelson" subject categories, we could have presented either the percent coded in, say, the fine arts category of all requests with 700-series DDC numbers (fine arts); or we could have presented the reverse: the percentage of items verified by DDC as fine arts requests, of all those coded in that subject category. In either case, the reader would have to refer to additional data to learn whether any given category was more or less likely to be consistently classified than others. Here the correlation approach commends itself because there is no ambiguity (the coefficient is literally the same regardless of whether we look at the fit of DDC to "Nelson" subjects, or subjects to DDC) and because no additional comparison is needed.

4. For elapsed times and for a few other pieces of information, means (averages) and standard deviations were used. The average elapsed time presents no problems of interpretation and need not be discussed here. The standard deviation simply functions as a measure of the variation concealed by the average. Perhaps the best example is one involving college grades. Using the usual conversion rule where A = 4, B = 3, and so on, we might say that a person had average grades of 3.0 and a standard deviation of grades of 1.0. All this means is that this student had a B average, but that it was not uncommon for him to get individual scores of C's or A's. So with elapsed times: if it takes an average of ten days to process a loan, with a standard deviation of two days, this means that within the general average, times of eight to 12 days are not unusual.

5. Finally, in Chapter VI a fairly complicated statistical procedure known as multiple regression has been employed. Such methods are appropriate when the problem involves a known factor which we wish to explain, and when the explanation must deal with many influencing variables simultaneously. Ordinary tabular analysis would be extremely unwieldy here, and would result in tables so large and complex that a sensible interpretation would, in all likelihood, be totally obscured. The regression procedure substitutes for such an analysis by using an established mathematical model to guide the work. It results in conclusions which are quite straightforward--a set of estimates of the force exerted by one factor on another. Admittedly, the procedures by which these results are reached may be mysterious. This is not the place to explain regression and multiple correlation, but in brief the procedure is based on all of the simple two-way relationships between each pair of items going into the problem. The mathematical routines provide a way to ascertain the more complex relationships among more than two variables. The conclusions which are drawn depend in very large measure on the understanding the researcher has on the substantive implications of his problem--regression is not a technique which can be used mechanically (but unfortunately it is often so used). It should be mentioned that such techniques depend on a number of assumptions about the statistical characteristics of the data. We shall not enumerate these here, but will simply stipulate that the assumptions have been adequately met for the purposes at hand. For further reference, the reader is referred to Facts From Figures by M. J. Moroney (Third Edition: Penguin Books, 1964), an excellent work for the non-statistician. The actual routines used here were suggested by a variety of sources, in particular, Helen Walker and Joseph Lev, Statistical Inference, and the work of Otis Dudley Duncan of the University of Michigan.

PRESENTATION OF DATA

A number of conventions have been used. First, in most cases, items with no data on a given variable have been excluded from any percentage calculations. This has the effect of making known cases a sample of all cases. For a lucid discussion of the problems involved in dealing with "no answer" situations, see Hans Zeisel, Say It With Figures (Fourth Edition, 1957: Harper and Row).

Second, with few exceptions no attempt has been made to provide comparative tables using data from both this study and the previous review of NYSILL, Phase I. Appendix B, the interim report for the last half of Phase I, is printed separately in this report; additionally, the text notes comparisons where they appear to be relevant. For detailed contrasts, however, the reader is referred to the previous reports cited in the bibliography.

Third, for the most part statistical tests of significance have not been made on these data. Such tests have dubious validity in survey situations. They were developed for experimental situations where the number of cases was usually small; in surveys with their large numbers of cases, the usual tests tend to call relationships "significant" which, for substantive reasons, may well be trivial. Instead we have chosen to be quite selective in the discussion of the data in the text, choosing only the relationships which appear to have major substantive implications and adopting a fairly conservative stance in assessing the strength of these relationships. Consistent with this is the fact that percentages in the report are rounded to even whole percents. To present more detailed results--say, to the tenth of a percent--would give a spurious impression of precision. In this study, the difference between 50% and 50.2% is not significant, and even if it was (statistically speaking), it would provide no useful substantive distinctions.

In general, it should be noted that an attempt has been made to strike a reasonable balance between the provision of statistical information and the assessments which must be made of NYSILL and interlibrary loan: we have tried to eliminate numerical matter unless it was directly relevant to the text, while at the same time supporting evidence for the analysis has been treated somewhat more exhaustively than may have been the case in the past.

The detailed coding instructions used to record the data follow.

Nelson Associates, Inc.

New York City

September 1968

NEW YORK STATE LIBRARY #8

ILL CODING SPECIFICATIONS

I. General Information

We are to study three interlibrary loan networks: the main network of the New York State Library (NYSILL) and two subsidiary regional networks, one centered around Buffalo (BUFF) and the other around Rochester (ROCH). It is possible for ILL items to be sent to NYSILL from either BUFF or ROCH. We will draw three independent samples of requests, one from each network; data will be recorded in one common format which fits all three, however, and all available data will be recorded. This means that in practice we must deal with more than three kinds of cases:

1. NYSILL cases come in three varieties; those which originated outside ROCH or BUFF are the most common and the simplest to handle. There may also be cases which first went through one or the other regional network, however. In such cases we will include the regional data, but the case will continue to be counted as a NYSILL case only.

2. BUFF and ROCH cases come in two varieties each: those which have not been sent on to NYSILL and those which have. In the latter case, we will add in NYSILL data but will not count such cases as part of the NYSILL sample.

3. Obviously some cases will exist (probably less than 2% of all BUFF or ROCH requests) which will be drawn in the regional samples and also drawn in the NYSILL sample. We will record the case once and code it so that it will be counted in both groups.

Every case in this study will need a unique ID number not matched by another case either in or outside its particular sample. We are using The New York State Library code numbers for this purpose. These will be assigned by the client to every case reaching that network. For those cases in the BUFF or ROCH samples which have not gone to NYSILL, we will make up ID numbers which follow the NYSILL format. Great care will have to be exercised to make sure these numbers do not match each other or a NYSILL number in the NYSILL sample.

Finding information in the NYSILL data for a ROCH or BUFF case, or reversing this to seek ROCH or BUFF data for a NYSILL case can be handled in a variety of ways. When BUFF submits a case to NYSILL, it will try to record the NYSILL ID number on its own records. ROCH is not recording the numbers but its requests are coded "Yes" or "No" for NYSILL referral; we may therefore presume that any item not filled by ROCH and coded "NYSILL Yes" should turn up in NYSILL. Going the other way, in theory at least, NYSILL requests from the ROCH or BUFF regions--which include the Nioga and Chautauqua transmission sites--should have gone through the regional system (except early in the study, when the regional systems will not have been fully operative). The actual matching of requests can be done by title and author; in case of doubt other data should be compared as well.

II. Sampling

For the moment, we will sample every fifth request in each of the three networks. (We will never draw a larger sample than this; if anything changes it will be to lower the sampling rate and correct work done to date by sampling the sample.)* The rules for this procedure are very simple. The count carries over from day to day and from one list of requests to the next. Once a case is chosen it is included even if no data whatever are available.

We will not receive all data on a case at once; we will receive whatever has been recorded every couple of weeks. Thus every new batch of data will require three kinds of treatment: locate additional information about those cases which were previously chosen for the sample, closing out as many cases as possible; locate new information on new cases, sampling these and closing out all completed items; and locate new cases which are still pending, recording what is available and noting those which will have to be held for the next batch of data.

To keep this straight, I will ask you to carefully organize both the raw data and the coded information, so that we have a file of data which relates entirely to items which have been sampled and completed; a file of data which is related to items which have been sampled but which require updating before completion; and a third file which, presumably, you will be working with. "Data" here means raw data, not the code sheets. These should also be organized, similarly to the ordering just given.

---

*The sampling ratio was revised to 1:10 as soon as volume estimates reached a reliable level.

III. Code Sheets

Raw data is to be transferred to FORTRAN coding paper according to specifications which are attached. Each line of this paper (precisely, each line which you enter) will be keypunched, one card to a line. There are a maximum of five cards per case (not many will require all five). This is a "five-deck" study, meaning that there are five cards per case, all cards of one kind constituting one deck.

Great care must be taken to make code sheets legible and unambiguous. Make sure you use only numbers or letters of the alphabet; ignore all punctuation marks.

The most common coding error for this kind of work is entering data off-column, e.g., starting something in column 30 which should have started in column 31. The sheets have been designed to make it easy to check for this. Do so.

All data for a case (e.g., all cards) should be entered on the same sheet.

ALL CARDS--COLUMNS 1-9: CASE IDENTIFICATION NUMBER

For cases in NYSILL sample, ROCH and BUFF sample cases which are sent to NYSILL:

Col 1-3. . . .	Request transmission site number (derived from list "Library Codes")
Col 4.	Month (see separate code sheet attached)
Col 5-8. . . .	Number (assigned at the State Library) within RTS and month
Col 9.	Case type: 1 if case in NYSILL sample only 2 if case in BUFF sample only (cannot occur for NYSILL cases) 3 if case in ROCH sample only (ditto) 4 if case was drawn in both NYSILL and BUFF samples 5 if case was drawn in both NYSILL and ROCH samples

ALL CARDS (continued)

For cases in ROCH or BUFF samples which were never sent to NYSILL:

Col 1-3. . . .	003 if BUFF, 004 if ROCH
Col 4.	Month (use date request was first made)
Col 5.	9 (to prevent duplication with NYSILL numbers)
Col 6-8. . . .	Consecutive number assigned by coder (001, 002, 003, etc.)
Col 9.	Case type, as in col 9 above; 1's are impossible for these cases.

CARD #1: AUTHOR/REQUESTOR

Col 1-9. . . .	ID
Col 10	1
Col 11-60. . .	Author, last name first. If several authors, use following style: SMITH JOHN M AND JAMES A DAVIS ET AL--if too much to fit, truncate. Use alphabetic characters only.
col 61-80. . .	Requestor, last name first. If too long, truncate.

CARD #2: TITLE

Col 1-9. . . .	ID
Col 10	2
Col 11-80. . .	Title, in full if possible. Abbreviate if necessary, and particularly for titles of articles in anthologies, which must go as follows: ROLE IN GOLD ED DICTIONARY OF SOCIAL SCIENCE (here article title is simply "Role"). Don't use this format for titles of articles in periodicals; a separate spot for periodical names is provided in Card #3.

CARD #3: CITATION

Col 1-9. . . .	ID
Col 10	3
Col 11-14. . .	Year piece was published (e.g., 1964)
Col 15	Always blank
Col 16-80. . .	If a periodical, title (keep track of those entered and always use same name) followed by volume, issue, etc.; if a book, publisher, place published. Examples: AMERICAN JOURNAL OF BIOPHYSICS VOL 33 NO XVI or HARCOURT BRACE NEW YORK.

CARD #4: MAIN DATA

Col 1-9. . . . ID
Col 10 4
Col 11 . . . . Type of patron:
- 1 if faculty
- 2 if student
- 3 if business or professional
- 4 if other eligible patron
- 5 if ineligible patron (must be so noted, explicitly; includes inmates of institutions and persons under 18 years of age)

Status will be identified either explicitly on ALA forms used by ROCH or by an alphabetic code used by BUFF and NYSILL: S for students, F for faculty, P for professional/business, O for others. The fifth code is unlikely but important if it can be identified.

Col 12 . . . . NYSILL eligibility:
- 1 if Yes
- 2 if No

For all items, including those from ROCH or BUFF, which are sent to NYSILL. A request is eligible if the TWX record includes either the name and address of the originating library or a patron status code.

Col 13-15. . . First three digits of Dewey Decimal code, if available.

Col 16-17. . . Nelson Associates Subject Code. To be entered by coder from list attached, "Subject Codes," using data on title (and for periodicals only, citation of periodical name) only.

Col 18 . . . . Specificity:
- 1 if request for a specific piece only
- 2 if request for information, e.g., "Anything on the cultivation of the Venus Flytrap"
- 3 if both, e.g., "Gluntz, Alphose, The Cultivation of the Venus Flytrap or comparable book"

Col 19 . . . . Language:
- 1 if piece appears to be entirely in English
- 2 if either title of piece or periodical title is in some language other than English

Col 20 . . . . Verification:
- 1 if verified
- 2 if not verified

Col 21 . . . . Book/Nonbook:
- 1 if a monograph, book, etc.
- 2 if a periodical
- 3 if a thesis (use code only if we can agree on standard definition in terms of available data)

Card #4 (continued)

	Note: for completely nonspecific requests (col 18, code 2) leave this column blank
Col 22	1 if request is noted on TWX as an urgent medical item; otherwise blank
Col 23-25. . .	Three-digit originating library ID, from NYSILL Directory. Add new codes for ROCH and BUFF libraries if required; in particular, Nioga and Chautauqua-Cattaraugus libraries will need to be added to BUFF, which serves them in the regional network. This is the ONLY place where these codes are used; all other library codes come from list attached. For NYSILL requests, the library code (usually in two-digit form) will follow request ID number on teletype sheet.
Col 26	Month when originating library initiated request
Col 27-28. . .	Day of month
Col 29-30. . .	Always blank
Col 31-33. . .	First local referral library (from list; BUFF and ROCH only)
Col 34	Month request sent to this library
Col 35-36. . .	Day of month
Col 37	Status at this library (see attached list, "Status Codes")
Col 38	Always blank
Col 39-41. . .	Second local referral library (from list; BUFF and ROCH only)
Col 42	Month request sent to this library
Col 43-44. . .	Day of month
Col 45	Status at this library (see "Status Codes")
Col 46	Always blank
Col 47-49. . .	Third local referral library (from list; BUFF and ROCH only)
Col 50	Month request sent to this library
Col 51-52. . .	Day of month
Col 53	Status at this library (see "Status Codes")
Col 54-55. . .	Always blank
Col 56	Month request reached NYSL (New York State Library)
Col 57-58. . .	Day of month
Col 59	Status at NYSL (see "Status Codes")
Col 60	Always blank
Col 61	Final status of item (see "Status Codes"; same as at last library reached by request)
Col 62-64. . .	If filled: library where filled (see "Library Codes")
Col 65	If filled: month request sent out of library, if available

CARD #4 (continued)

Col 66-67. . . If filled: day of month
Col 68-69. . . Always blank
Col 70 . . . . If filled: month request received by originating library, if available (use postcard replies)
Col 71-72. . . If filled: day of month of receipt of request, if available
Col 73-80. . . Always blank

CARD #5: REFERRALS (for NYSILL items sent to referral centers only)

Col 1-9. . . . ID
Col 10 5
Col 11-30. . . Always blank
Col 31-33. . . First NYSILL referral library (see "Library Codes")
Col 34 . . . . Month request sent to this library
Col 35-36. . . Day of month
Col 37 . . . . Status at this library
Col 38 . . . . Always blank
Col 39-41. . . Second NYSILL referral library (see "Library Codes")
Col 42 . . . . Month request sent to this library
Col 43-44. . . Day of month
Col 45 . . . . Status at this library
Col 46 . . . . Always blank
Col 47-49. . . Third NYSILL referral library (see "Library Codes")
Col 50 . . . . Month request sent to this library
Col 51-52. . . Day of month
Col 53 . . . . Status at this library
Col 54-80. . . Always blank

B13

LIBRARY CODES

NYSILL REFERRAL CENTERS (may also act as request transmission sites):

Three-Column Code	Name of Library	NYSL Abbreviations	National Union Code	Notes
001	New York State Library (only if not otherwise identified; see "affiliated institutions" below)	NYSL	N	
002	Brooklyn Public Library	BPL	NB	
003	Buffalo and Erie County Library	BECL	NBU	
004	Rochester Public Library (also known as Rundel Memorial Library, Monroe County Library System, Pioneer Library System)	RPL, PLS	NR	
005	Columbia University Libraries	COL U	NNC	
006	Cornell University Libraries	CORNELL, CU	NIC	
007	Engineering Societies Library	ENG SOC	NNE	
008	New York Academy of Medicine	NYAM	NNN	
009	New York Public Library	NYPL	NN	
010	New York University Libraries	NYU	NNU	
011	Teachers College Library	TC	NNC-T	
012	Union Theological Seminary	UNION	NNUT	
013	American Museum of Natural History	--	NNM	
014	Metropolitan Museum of Art	MET MUS	--	No longer a NYSILL center

NYSILL REQUEST TRANSMISSION SITES:

Three-Column Code	Name of Library	NYSL Abbreviations	National Union Code	Notes
015	Chautauqua-Cattaraugus L.S.	CCLS		
016	Chemung-Southern Tier L.S.	STLS		
017	Clinton-Essex-Franklin Library	CEF, CEFL		
018	Finger Lakes Library System	FLLS		
019	Four County Library System	4CLS		
020	Mid-Hudson Libraries	MHLS		
021	Mid-York Library System	MYLS		
022	Mohawk Valley Library Association	MVLA		
023	Nassau Library System	NLS		
024	Nioga Library System	NIOGA		
025	North Country Library System	NCLS		
026	Onondaga Library System	OLS		
027	Queens Borough Public Library	Q, QBPL		
028	Ramapo-Catskill Library System	RCLS		
029	Southern Adirondack Library System	SALS		
030	Suffolk Cooperative Library System	SLS		
031	Upper Hudson Library Federation	UHLF		
032	Westchester Library System	WLS		

5

LIBRARY CODES
(continued)

Three-Column Code	Name of Library	NYSL Abbreviations	National Union Code	Notes
	Request Transmission Sites: Colleges and Universities:			
033	SUNY: Binghamton	SUNYB		
034	SUNY: Albany	SUNYA		
035	SUNY: Potsdam	SUNYP		
036	SUNY: Buffalo	SUNYBU	NBUU	Local referral library for BUFF
037	Hamilton College			
038	CUNY: Graduate Library			
039	University of Vermont			
040	Clarkson Technical College	CLARK		
041	Union College			
042	Indiana State University			
	Request Transmission Sites: Specific State Agencies Affiliated with the New York State Library:			
043	Science and Technology Library	S&T		
044	Medical Library	M		
045	Legislative Reference Section	LR		
046	Education	E		
047	Periodicals	P		
048	Reference	R		
049	Mail requests (carry a six-digit number, e.g., "000000")			
050	Law	L, LAW		
051	Special Service	SS		
	Request Transmission Sites: Others to Date:			
052	Brookhaven National Laboratories	BNL		
053	Carrier Corporation, Syracuse			
054	Dupont, Buffalo			
055	Eastman Kodak, Rochester			
056	Sylvania Electric, Buffalo			
057	Great Lakes Carbon Co.			
058	Technical Information, Memphis			
059	Medical Research Library, Brooklyn			
060	Albert Einstein Medical College			
061	State Library, Hartford, Connecticut			
062	State Library, Harrisburg, Pennsylvania			
063	Providence Public Library, Rhode Island			

LIBRARY CODES
(continued)

Three-Column Code	Name of Library	NYSL Abbrevi-ations	National Union Code	Notes
OTHER LIBRARIES, EITHER REQUEST TRANSMISSION SITES OR REFERRAL LIBRARIES:				
064	University of Rochester Libraries			Both are local referral libraries for ROCH
065	SUNY: · Brockport			
065-999	These numbers are available for use to denote new institutions			

CODES FOR MONTHS

0 . . . . September
1 . . . . October
2 . . . . November
3 . . . . December
4 . . . . January

REQUEST STATUS CODES (all items)

Code	Meaning	Denoted at NYSL with Alphabetic
1	Request completed: book or routine photocopy sent--includes	
	. . . those at NYSL	A
	. . . those at other libraries	P-(library)
2	Request completed: photocopy sent	
	. . . from NYSL	B
	. . . from other library	PB-(library)
3	Request completed: material is on reserve at the NYSL (presently NOS)	D
4	Request not filled: owned but not on the library shelves (NOS) at either	
	. . . NYSL	C
	. . . other libraries	H-(library)
5	Request not filled: owned but will not send out at	
	. . . NYSL	GN
	. . . other libraries	G-(library)

REQUEST STATUS CODES
(continued)

Code	Meaning	Denoted at NYSL with Alphabetic
6	Request not filled: not owned at	
	. . . NYSL	E
	. . . other libraries	M-(library)
	. . . entire network	S
7	Request not filled: ineligible for referral	J
8	Request not filled: inadequate citation	F
9	Request pending: referred to ARC/SRC (use this code only if no other information available)	K
0	Request pending: not supplied by network; being reserved at the State Library (use this code only if no other information available)	SN

(Note: If any combination of these codes applies or if any outcome not described above occurs, check to see if additional categories should be defined.)

SUBJECT CODES

Physical Sciences (General: 00)

01 . . Astronomy, Astrophysics
02 . . Chemistry (not Biochemistry)
03 . . Physics (not Biophysics)
04 . . Geology, Geophysics
05 . . Mathematics, Statistics
06 . . Other Physical Sciences (Oceanography, Meteorology, etc.)

Biological Sciences (General: 10)

11 . . Biology (Botany and Zoology)
12 . . Genetics
13 . . Biochemistry, Biophysics
14 . . Microbiology (Bacteriology, Virology, etc.)
15 . . Other Biological Sciences

Biological Sciences (continued)

15 . . Other Biological Sciences (Anatomy, Entomology, Physiology, etc.)
16 . . Agricultural Sciences (Forestry, Veterinary Medicine, etc.; not hobby books on Gardening, however)

Social Sciences (General: 20)

21 . . Anthropology, Archaeology
22 . . Economics
23 . . Geography
24 . . Political Science
25 . . Sociology
26 . . Clinical Psychology (not Psychiatry, which is to be coded with Medicine)
27 . . General Psychology

SUBJECT CODES
(continued)

Social Sciences (continued):

28 . . Social Psychology
29 . . Other Social Sciences (advise before use; Psychology subfields should go with General Psychology)

Humanities (General: 30):

31 . . Classics, Literature
32 . . Philosophy/Religion
33 . . Art, Fine Arts, Photography
34 . . Music
35 . . Modern Foreign Language/Literature
36 . . Architecture, City Planing

History (General: 40):

41 . . Ancient History
42 . . Modern European History
43 . . American History
44 . . Other History (Russian, Latin American, etc.)

Professional Literature (General: 50):

51 . . Business (not Advertising)
52 . . Engineering
54 . . Education
55 . . Medicine (including Dentistry, Nursing, Psychiatry, etc.)
56 . . Public Administration
57 . . Social Work
58 . . Law
59 . . Communication Fields (Journalism, Radio/TV, Public Relations, Advertising, etc.)

Popular Fiction (General: 60):

61 . . Biography

Popular Nonfiction (General: 70):

71 . . Hobby books (Gardening, Modelmaking, etc.)
72 . . Periodicals other than journals (for borderline cases like *Scientific American*, treat as a journal)

Using This List: Try to base judgment on title and periodical titles only. Do not feel obligated to use all categories listed above. Use "general" codes only as a last resort.

Appendix C

INTERIM REPORT ON THE LATTER MONTHS OF NYSILL, PHASE I

In October 1968, Nelson Associates mailed a brief summary review of the operations of NYSILL during the period November 22, 1967 through June 21, 1968. Done as part of the present study, this report represents a link between the study of early NYSILL experience and the present review of the revised NYSILL system. For example, the interim report clearly indicates that some substantial improvements came about in NYSILL prior to any major Phase II revisions. We would assume, therefore, that this is evidence that a fair amount of debugging time is needed for these systems, and that given such time improvements in service do come about.

The report is reproduced in its original form, with minor editing to eliminate material which is repeated in the body of this report, and to clarify several minor ambiguities in the original letter.

NELSON ASSOCIATES, INCORPORATED • 845 THIRD AVENUE, NEW YORK, N.Y. 10022 • 212 HA 1-3110

October 15, 1968

Miss Jean L. Connor, Director
Division of Library Development
The New York State Library
Albany, New York 12224

Dear Miss Connor:

We are pleased to submit herewith our latest interim report on the continuing operations of the New York State Interlibrary Loan network (NYSILL), in keeping with our responsibilities to monitor and analyze the results of this program. This informal document discusses trends in the operation of NYSILL from March 1967 through June 1968. These trends reflect a record of consistency and some improved performance in the program.

The material below includes data from our earlier review of the operations of NYSILL (An Evaluation of the New York State Library's NYSILL Pilot Program, March 1968), as well as the results of our recently completed analyses of experience during the period November 22, 1967 through June 21, 1968. Data have been grouped by monthly periods for most portions of this report, in order to provide statistics comparable to those developed previously and to foster an understanding of seasonal effects on NYSILL. The conventions and tabular formats of earlier reports have been retained wherever possible; thus, the changes reported reflect actual differences in the data, not in the mode of presentation.

METHODOLOGY

Sample Selection

To generate updated statistics on NYSILL, a sample was drawn of all requests forwarded to the State Library during the seven-month period (November 22, 1967 - June 21, 1968) specifically covered in this phase of the monitoring. This procedure permitted a thorough review of the available data without incurring the very considerable costs which would result from an analysis of all requests received. NYSILL control sheets, prepared and maintained at the State Library, were utilized in the sample selection process. Every 25th consecutive request noted on these control sheets between November 22 and June 21 was included. (Special service requests were excluded in the counting.) The resulting sample was judged to be equivalent to one that would have been produced by a fully random selection of requests.

A total of 1,982 cases, representing 49,550 items referred to the State Library, were chosen by the process described above. Where volume figures are required in this report, the sample results have been weighted back to an approximation of the original total (see Table C.1).

Data Tabulation

All figures presented in this report were extracted either from the NYSILL control sheets or from the matching teletype sheets maintained at the State Library. Information pertaining to volume, status of requests, referral libraries, estimated costs and elapsed times was taken from the control sheets; the original teletyped record provided data on patron status and the type of originating library.

All data were tabulated by hand. This technique was possible because the objectives of this phase of the monitoring were relatively limited; because the sample procedure reduced the number of items to be handled to a manageable number; and because previous studies made it possible to anticipate in advance exactly what tabulations were required. However, this strategy precluded any computation of statistics more complex than simple means (averages). Should additional study indicate that other indicators are required--for example, standard deviations for elapsed times--they will be provided in the final report.

ANALYSES AND FINDINGS

Volume

Table 2 [not reproduced here because it is essentially the same as Table 4.1 in Part III of this report] reveals the interlibrary loan volume at The New York State Library, by month, from January 1966 to the present. Beginning in March 1967, this volume is roughly equal to NYSILL volume; the only difference between total volume and NYSILL volume is that the former includes special service requests. It should be noted that the volume estimate provided by the sample (1982 x 25 = 49,500) appears to be reasonably close to the actual total for the sample period. (An exact comparison is impossible due to differences in the time periods used to record this information.)

NYSILL use continues to vary seasonally, following the demands the academic calendar (as was noted in the previous study). Peak periods of use are in March and again in October. In addition, overall volume is rising at an average rate of about 20% over the previous year. Should this rate of increase continue, NYSILL volume would be expected to double

Table C.1

SAMPLE SIZE FOR NYSILL REQUESTS RECEIVED AT THE NEW YORK STATE LIBRARY BY TELETYPE, NOVEMBER 1967 TO JUNE 1968, BY MONTHLY TIME PERIODS

Time Period	Sample Size ...	...x 25 = Total Volume	Monthly Volume as Percent of Total Volume
November-December	319	7,975	16%
December-January	218	5,450	11
January-February	300	7,500	15
February-March	369	9,225	19
March-April	310	7,750	16
April-May	265	6,625	13
May-June	201	5,025	10
Total: All Periods	1,982	49,550	100%

Table C.2

NUMBER OF NYSILL REQUESTS, NOVEMBER 1967 TO JUNE 1968, BY TIME PERIODS AND PATRON STATUS (WEIGHTED TOTAL FROM SAMPLE)

Number of Items Requested by:	Total, All Periods	Monthly Intervals:						
		November to December	December to January	January to February	February to March	March to April	April to May	May to June
Faculty	2,875	550	375	525	600	275	275	275
Students	5,450	1,375	375	650	1,000	1,375	450	225
Others	12,475	1,850	1,325	2,225	2,525	1,350	1,800	1,400
Total Eligibles	20,800	3,775	2,075	3,400	4,125	3,000	2,525	1,900
Ineligibles	20,525	3,425	1,800	3,575	3,475	3,525	2,675	2,050
Total Cases with Known Patron Status	41,325	7,200	3,875	6,975	7,600	6,525	5,200	3,950
NA, Patron Status	8,225	775	1,575	525	1,625	1,225	1,425	1,075
Total Cases	49,550	7,975	5,450	7,500	9,225	7,750	6,625	5,025

Table C.3

PERCENTAGE OF NYSILL REQUESTS, NOVEMBER 1967 TO JUNE 1968, FOR FACULTY, STUDENTS, AND OTHERS (ELIGIBLE REQUESTS ONLY)[a]

Percentage from:	Total, All Periods	Monthly Periods:						
		November to December	December to January	January to February	February to March	March to April	April to May	May to June
Faculty	14%	15%	18%	15%	15%	9%	11%	14%
Students	26	36	18	19	24	46	18	12
Others	60	49	64	65	61	45	71	74
Total	100%	100%	100%	99%[b]	100%	100%	100%	100%

a. Data from Table 3.
b. Does not add to exactly 100%, due to rounding.

every four years. Since eventually this projection leads to ludicrous estimates of NYSILL volume, it is evident that at some point the rate of increase is going to fail back to produce more stable loads on the State Library.

Patron Status

Every eligible user of NYSILL may be classed in one of three ways: as faculty, as a student, or as some "other" user. Some patrons may submit requests to the State Library which are ineligible for referral (standard reference books, fiction, etc.), and certain kinds of patrons (inmates of penal institutions, persons under 18 years of age) are barred from use of the system. In either of these instances, requests receive an "ineligible" classification. Finally, originating libraries do not always supply data on the patron status associated with a particular request.

The distribution of NYSILL requests in each of these categories is shown in Table C.2. In general, the volume of use from the several kinds of patrons follows the overall seasonal trend, with peaks in late fall and mid-winter. Faculty requests are the smallest group; most eligible requests are originated by "others." Almost half of all requests are ineligible for NYSILL referral, if it can be assumed that the unknown "no answer" cases are distributed in about the same manner as are those on which the originating libraries were able to report.

The seasonal variation in use of NYSILL by known kinds of eligible patrons is even more pronounced when percentage distributions--which have the effect of holding changes in overall volume constant, and emphasizing the relative impact of a given patron group--are examined by month. This is shown in Table C.3. The data indicate that the proportion of faculty requests was greatest in December-January, despite the fact the volume of these requests had actually gone down from the previous period. Student requests made up nearly half of the total during March-April, and the "other" patrons constituted most of the eligible volume in the late spring.

All these patron statuses were compared with equivalent data from the earlier report (Table 2.2, An Evaluation of NYSILL). The major finding is that the number of ineligible requests has increased in the last seven months, accounting for a good deal of the increase in volume. There is nothing "wrong" with this volume of ineligible items; it simply means that librarians continue to use the State Library to fill requests which they do not feel merit referral to the cooperating NYSILL resource libraries.

Overall Outcomes

Table C.4 shows the percentage of NYSILL requests referred and filled for three time intervals since the network's inception. Figures

Table C.4

OVERVIEW OF NYSILL OUTCOMES BY THREE MAIN TIME INTERVALS SINCE THE PROGRAM'S INCEPTION IN MARCH 1967[a]

	March 22, 1967 to July 21, 1967	July 22, 1967 to November 21, 1967	November 22, 1967 to June 21, 1968
Average Monthly Volume	5,308	5,497	7,079
Percent Filled	53%	55%	60%
Percent Referred	27%	24%	32%

---

a. Data from weighted sample and from Table 3.1 of *An Evaluation of NYSILL, op. cit.*

Table C.5

PERCENTAGE OF REQUESTS AT EACH TYPE OF ORIGINATING LIBRARY, NOVEMBER 1967 THROUGH JUNE 1968, BY MONTHLY TIME PERIODS[a]

Type of Originating Library	Total, All Periods	Monthly Intervals:						
		November to December	December to January	January to February	February to March	March to April	April to May	May to June
Public	76%	74%	73%	78%	70%	78%	79%	80%
Academic	22	25	23	20	23	19	19	19
Others	2	2	4	2	6	3	2	1
Total[b]	100%	101%	100%	100%	99%	100%	100%	100%

a. Data from weighted sample.
b. May not total exactly 100% due to rounding.

Case Base: 46,575

NA, Originating Library: 2,475

Total N 49,550

Table C.6

OUTCOMES FOR NYSILL REQUESTS, BY TYPE OF ORIGINATING LIBRARY, FOR TWO MAIN TIME INTERVALS SINCE INCEPTION IN MARCH 1967[a]

Type of Originating Library	Percent Filled...			Percent Referred...		
	March 1967 to November 1967	November 1967 to June 1968	Difference	March 1967 to November 1967	November 1967 to June 1968	Difference
Public	-[b]	56%	-[b]	-[b]	23%	-[b]
Academic	64%	71	+ 7%	44%	47	+ 3%
Others	63	64	+ 1	59	49	+ 10
All Types (Total)	55%	60%	+ 5%	26%	32%	+ 6%

a. Data from Table 6 and from Tables 3.1 and 3.2 of *An Evaluation of NYSILL, op. cit.*

b. See text; data for March-November 1967 have been excluded since a lack of data on originating library for ineligible requests biased the earlier results. See *An Evaluation of NYSILL, op. cit.*, p. 27.

Table C.7

VOLUME, ORIGINATING LIBRARIES, AND OUTCOMES FOR NYSILL REQUEST TRANSMISSION SITES, NOVEMBER 1967 TO JUNE 1968[a]

Request Transmission Site	Volume	Percent of All Requests Originating at:			Outcomes:	
		Public Libraries	Academic Libraries	Other Libraries	Percent Referred	Percent Filled
Suffolk Cooperative Library System	7,325	95%	4%	1%	24%	54%
Nassau Library System	5,975	96	4	-	5	47
Ramapo Catskill Library System	4,600	97	2	1	21	58
Mid-Hudson Libraries	3,925	83	14	3	20	50
Southern Adirondack Library System	2,175	91	8	1	11	56
Four County Library System	1,650	100	-	-	53	65
Mid-York Library System	2,100	92	8	-	43	67
Pioneer Library System	2,275	46	45	9	56	53
Chautauqua-Cattaraugus Library System	1,625	100	-	-	38	78
Nioga Library System	1,375	82	18	-	19	49
Mohawk Valley Library Association	1,350	100	-	-	43	61
Finger Lakes Library System	1,050	98	-	2	24	48
Chemung-Southern Tier Library System	850	79	18	3	50	65
Westchester Library System	1,075	98	2	-	56	72
Onondaga Library System	1,150	89	11	-	57	57
North Country Library System	625	96	4	-	44	72
Clinton-Essex-Franklin Library	475	100	-	-	16	58

(continued)

Table C.7
(continued)

Request Transmission Site	Volume	Percent of All Requests Originating at:			Outcomes:	
		Public Libraries	Academic Libraries	Other Libraries	Percent Referred	Percent Filled
Buffalo and Erie County Public Library	700	32%	61%	7%	68%	82%
Brooklyn Public Library	225[b]	89[b]	11[b]	-[b]	22[b]	33[b]
New York Public Library Research Libraries[c]	-[c]	-[c]	-[c]	-[c]	-[c]	-[c]
Queens Borough Public Library	25[b]	100[b]	-[b]	-[b]	100[b]	-[b]
Academic Libraries:						
Union College	1,525	-	100	-	28	75
SUNY: Albany	2,175	-	100	-	28	75
SUNY: College at Potsdam	1,375	-	100	-	42	91
SUNY: Buffalo	525	-	100	-	81	71
Cornell University	150[b]	-[b]	100[b]	-[b]	50[b]	83[b]
SUNY: Binghamton[c]	-[c]	-[c]	-[c]	-[c]	-[c]	-[c]
All Other Academic	575	-	100	-	22	48
All Other Libraries:						
Mail, etc., to The New York State Library	2,225	-	-	100	90	67
Special/ Industrial	450					
Total, All Transmission Sites	49,550	76%	22%	2%	32%	60%

a. Weighted sample of requests.
b. Percentages unreliable: based on less than 10 unweighted cases.
c. No requests from this site were drawn in the sample.

for the seven-month period monitored for this report appear in the right-hand column of that table. The proportion of filled requests has been rising slowly, while the percentage of items sent into the referral network, after falling slightly in the fall of 1967, has now reached 32%.

Originating Libraries

Table C.5 indicates that public libraries increased their share of NYSILL volume during the the spring of 1968. There is no special overall trend, however; when these numbers are compared with equivalent data from the earlier studies (Table 3.3 of An Evaluation of NYSILL), it becomes apparent that seasonal variations could account for all of this increase.

Table C.6 presents some data on outcomes by type of originating library. Comparisons for public libraries have not been included, because incomplete data in the earlier study biased these results (see An Evaluation of NYSILL, page 27). Nevertheless, it is clear that more items are being referred and more are being filled, for all three kinds of originating libraries. Public libraries submit the bulk of all NYSILL requests, and thus changes there undoubtedly parallel trends for the whole.

Request Transmission Sites

The institution that actually transmits a request to the State Library is called a "Request Transmission Site." For many requests, this may be the same as the originating library. Alternatively, the transmission site may act as an intermediary for a library without TWX facilities. These sites are listed in Table C.7 in the same order used when they appeared in the previous report (Tables 3.4 and 3.5, An Evaluation of NYSILL). Volume data for the present seven-month monitoring period is presented in the left-most column of the table, and shows that the general ranking of transmission sites by NYSILL volume has not changed radically. The distribution of originating libraries associated with each request transmission site is very similar to that described in the previous work. Several transmission sites have experienced considerable improvements in their success with NYSILL. For example, the percentage of items transmitted from the Buffalo and Erie County Library that were referred has gone from 39 to 68%, and the percent filled for that transmission site has gone from 64 to 82%. In general, the sites which had the best previous experience with NYSILL continue to have more of their transmitted items filled. Those which were most likely to forward requests which were referred continue to submit such requests. System centers continue to serve primarily other public libraries, while transmission sites at colleges and universities serve mostly themselves.

Table C.8

STATUS OF NYSILL REQUESTS AT THE NEW YORK STATE LIBRARY, NOVEMBER 1967 TO JUNE 1968, BY TIME PERIODS[a]

Status at the State Library	Total, All Periods	Monthly Periods:						
		November to December	December to January	January to February	February to March	March to April	April to May	May to June
Eligible:								
Filled	25%	26%	22%	21%	27%	26%	23%	25%
Not in Library (NIL)	25	25	21	24	27	21	29	25
Not on Shelf (NOS)	6	5	6	5	7	4	6	9
Will Not Send (WNS)	1	1	-	1	1	-	1	-
Other Status	1	-	-	-	1	3	-	-
Ineligible:								
Filled	19	16	24	26	16	20	17	14
Not Filled	24	27	27	22	21	25	24	26
Total[b]	101%	100%	100%	99%	100%	99%	100%	99%

a. Data from weighted sample.
b. May not total exactly 100%, due to rounding.

NA: None

N: 49,550

Table C.9

COMPARISON OF OUTCOMES AT THE STATE LIBRARY, FOR THREE MAJOR TIME INTERVALS[a]

Outcome	Time Interval		
	March 1967 to July 1967	July 1967 to November 1967	November 1967 to June 1968
Percent of All Requests:			
Filled at State Library	43%	45%	44%
Referred	27	24	32
Neither Filled nor Referred	30	31	24
Total	100%	100%	100%

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a. Data from Table 9 and from Table 3.1 of *An Evaluation of NYSILL, op. cit.*

Status at the State Library

About 44% of all requests were filled at The New York State Library without referrals. Detailed data on these requests and on the status of unfilled eligible items are given in Table C.8. As in the past, most unfilled materials were simply not held by the State Library. These results did not vary in any systematic manner across time.

A comparison of these outcomes since the inception of NYSILL shows that the State Library's record of filling requests remains very stable. The principal changes, shown in Table C.9, have come in the use of the referral network, with consequent lowering of the proportion of items neither filled at the State Library nor referred.

The Referral Network

Table C.10 gives the volume and outcomes for first referrals at all 11 referral libraries. A comparison with Table 3.10 of the previous study shows that the proportion of requests sent immediately to subject referral centers (SRC's) has increased considerably, from 26% of all referrals in the first eight months of NYSILL to 57% in the latter seven months. As might be expected, use of the area referral centers (ARC's)--Brooklyn, Buffalo, and Monroe County--increased for second referrals. In previous months these libraries received only 11% of those items; more recently they received 44%, as shown in Table C.11. Clearly, then, the original practice of searching NYSILL requests first at ARC's and then at SRC's has been modified considerably. No tabulation of third referrals has been presented, as there were not enough of these in our sample to produce valid detailed statistics. Only 15% of third referrals are filled, as contrasted with 29% of second referrals and 43% of first referrals. In the earlier study, 37% of all first referrals were filled, 34% of all second referrals, and 28% of all third referrals. This underscores the effect of the increased use of subject referral centers for first referrals. Items which these libraries did not receive in the past until second referral are now being searched and filled immediately.

In the perspective of a referral library, it makes little difference whether a request is a first, second, or tenth (if that were possible) referral. This approach is reflected in Table C.12, which combines data in Table C.10, Table C.11 and information on third referrals not presented separately above. The 14,975 referred requests generated almost 20,000 searches for referral libraries. The balance of these between area and subject referral centers has shifted in the past seven months, so that the SRC's now carry the major portion of the NYSILL load. The most heavily used libraries are still the three area centers, but their edge over the others has been considerably reduced. Overall, referral centers are now filling about 39% of the items they receive, as opposed to about 36% previously; most of this improvement comes from a

Table C.10

VOLUME AND STATUS AT THE FIRST REFERRAL LIBRARY FOR ALL REFERRED REQUESTS, BY EACH REFERRAL LIBRARY[a]

Referral Libraries	Volume		Status at First Referral: Percent...				
	Number of Referrals	Percent of Total	Filled	NIL	NOS	WNS	Total[b]
Area Referral Libraries							
All Libraries	6,375	43%	26%	51%	18%	5%	100%
Brooklyn Public Library	1,725	12	38	48	9	6	101
Buffalo and Erie County Public Library	2,250	15	29	48	17	7	101
Monroe County Library System	2,400	16	16	55	26	3	100
Subject Referral Libraries							
All Libraries	8,600	57	56	25	7	12	100
Columbia University	1,575	11	49	25	13	13	100
Cornell University	1,625	11	63	20	9	8	100
Engineering Societies Library	275	2	45	45	-	9	99
The New York Academy of Medicine	1,425	10	61	23	12	4	100
The New York Public Library Research Libraries	1,550	10	73	15	-	13	101
New York University	300	2	33	50	8	8	99
Teachers College	775	5	26	39	3	32	100
Union Theological Seminary	1,075	7	51	30	5	14	100
Total, All Libraries	14,975	100%	43%	36%	12%	9%	100%

a. Data from weighted sample.
b. May not total exactly 100% due to rounding.

Table C.11

VOLUME AND STATUS AT THE SECOND REFERRAL LIBRARY FOR ALL REFERRED REQUESTS, BY EACH REFERRAL LIBRARY[a]

Referral Libraries	Volume		Status at Second Referral: Percent...				
	Number of Referrals	Percent of Total	Filled	NIL	NOS	WNS	Total[b]
Area Referral Libraries							
All Libraries	1,900	44%	22%	54%	18%	5%	99%
Brooklyn Public Library	650	15	38	42	8	12	100
Buffalo and Erie County Public Library	900	21	17	53	28	3	101
Monroe County Library System	350	8	7	79	14	-	100
Subject Referral Libraries							
All Libraries	2,425	56	35	52	8	5	100
Columbia University	600	14	50	38	8	4	100
Cornell University	500	12	60	25	10	5	100
Engineering Societies Library	200[c]	4[c]	12[c]	88[c]	-[c]	-[c]	100
The New York Academy of Medicine	175[c]	4[c]	14[c]	43[c]	43[c]	-[c]	100
The New York Public Library Research Libraries	200[c]	4[c]	12[c]	62[c]	-[c]	25[c]	99
New York University	175[c]	4[c]	29[c]	71[c]	-[c]	-[c]	100
Teachers College	75[c]	2[c]	-[c]	67[c]	-[c]	33[c]	100
Union Theological Seminary	500	12	25	70	5	-	100
Total, All Libraries	4,325	100%	29%	53%	13%	5%	100%

a. Data from weighted sample.
b. May not total exactly 100% due to rounding.
c. Percentages unreliable: based on less than 10 unweighted cases.

Table C.12

STATUS OF ALL REFERRALS, BY REFERRAL LIBRARY[a]

Referral Libraries	Volume		Status: Percent...				
	Number of Referrals	Percent of Total	Filled	NIL	NOS	WNS	Total[b]
Area Referral Libraries							
All Libraries	8,325	42%	25%	51%	18%	5%	99%
Brooklyn Public Library	2,400	12	38	47	8	7	100
Buffalo and Erie County Public Library	3,150	16	25	49	20	6	100
Monroe County Library System	2,775	14	14	58	24	4	100
Subject Referral Libraries							
All Libraries	11,475	58	50	32	8	11	101
Columbia University	2,275	11	48	29	12	11	100
Cornell University	2,300	12	60	21	11	9	101
Engineering Societies Library	550	3	27	68	-	5	100
The New York Academy of Medicine	1,600	8	56	25	16	3	100
The New York Public Library Research Libraries	1,750	9	66	20	-	14	100
New York University	550	3	27	64	5	5	101
Teachers College	850	4	24	41	3	32	100
Union Theological Seminary	1,600	8	42	44	5	9	100
Total, All Libraries	19,800	100%	39%	40%	12%	8%	99%

a. Data from Tables 11 and 12, plus third referrals where applicable.
b. May not total exactly 100% due to rounding.

reduction in items which were NIL (not in the library). The NOS (not on shelf) and WNS (will not send) proportions remained about the same as before. The outcomes for area and subject centers have been tabulated by monthly period in Table C.13, in order to determine if performance had further changed within the monitored time interval. The results do not show a systematic pattern, however. The table does indicate that the area centers more than doubled their proportion of filled items in the last monthly interval, but this in itself is insufficient to establish a trend.

To facilitate comparison between the first eight months and the latter seven months of NYSILL, Table C.14 provides monthly volume averages and the percentage of filled requests for all referral libraries. As was indicated above, the increase in volume is probably due both to seasonal variation--the phase under analysis here excludes the summer months, with their relatively low volume--and to real increases in the use of NYSILL. Most of this increase falls on the subject referral centers, with Columbia University, Cornell University, Union Theological Seminary, and the Academy of Medicine showing the greatest changes in absolute volume. Volume at Brooklyn is actually lower than before. Brooklyn, which continues to use the resources of the circulating collections of The New York Public Library and The Queens Borough Public Library, was the only area referral center to show an improvement in filling requests. The greatest improvement in filling requests occurred at The New York Public Library Research Libraries which now successfully handle two-thirds of the items which they receive.

Elapsed Times

In the previous work, times were recorded at 11 points in the NYSILL network. Analysis of these permitted a detailed review of the time required to handle a request. In the present report, only a few of these 11 times were available in records maintained at the State Library; thus the scope of the analysis has been reduced accordingly. The exact changes are:

(1) Times for receipt of request at originating library and at request transmission site: the State Library did not require these data during the period monitored. Consequently, no new estimate of time consumption between originating library and the State Library has been derived for this report.

(2) Times for receipt of request at the State Library and at referral centers: these were recorded and new estimates are presented below.

(3) Times for receipt of filled requests at originating libraries, and for notification and receipt of

Table C.13

STATUS FOR ALL REFERRALS, BY TIME PERIODS, FOR AREA REFERRAL LIBRARIES AND SUBJECT REFERRAL LIBRARIES[a]

Status	Total, All Periods	Time Periods: November to December	December to January	January to February	February to March	March to April	April to May	May to June
Area Referral Libraries								
Filled	25%	15%	22%	29%	35%	25%	21%	51%
NIL	51	57	69	58	37	56	46	35
NOS	18	24	6	9	20	11	25	11
WNS	5	4	3	4	9	8	7	3
Total[b]	99%	100%	100%	100%	101%	100%	99%	100%
Base (Volume)	(8,325)	(1,850)	(900)	(1,200)	(1,150)	(900)	(1,400)	(925)
Subject Referral Libraries								
Filled	50%	42%	51%	44%	57%	48%	64%	46%
NIL	32	46	27	28	23	30	21	46
NOS	8	8	10	6	8	9	10	4
WNS	11	4	12	23	12	13	5	4
Total[b]	101%	100%	100%	101%	100%	100%	100%	100%
Base (Volume)	(11,475)	(1,800)	(1,025)	(1,775)	(2,375)	(1,725)	(1,450)	(1,300)

a. Data from weighted sample.
b. May not total exactly 100% due to rounding.

Table C.14

VOLUME PER MONTH AND PERCENT FILLED, BY REFERRAL LIBRARY, FOR MARCH TO NOVEMBER 1967 AND NOVEMBER 1967 TO JUNE 1968[a]

Referral Library	Volume per Month:			Percent Filled:		
	March 1967 to November 1967	November 1967 to June 1968	Increase/ Decrease	March 1967 to November 1967	November 1967 to June 1968	Increase/ Decrease
Area Referral Libraries:						
All Libraries	1,076	1,189	+ 113	30%	25%	- 5%
Brooklyn Public	373	343	- 30	33	38	+ 5
Buffalo-Erie	401	450	+ 49	34	25	- 9
Monroe County	302	396	+ 94	21	14	- 7
Subject Referral Libraries:						
All Libraries	900	1,639	+ 739	45	50	+ 5
Columbia	148	325	+ 177	42	48	+ 6
Cornell	112	329	+ 217	52	60	+ 8
Engineering Societies	50	79	+ 29	46	27	- 19
Metropolitan Museum[b]	36	–[b]	–[b]	22	–[b]	–[b]
N.Y. Academy of Medicine	107	228	+ 121	56	56	No change
N.Y. Public Library	195	250	+ 55	52	66	+ 14
N.Y. University	141[c]	79	- 62	26	27	+ 1
Teachers College	60	121	+ 61	21	24	+ 3
Union Theological Seminary	51	228	+ 177	46	42	- 4
Total, All Libraries	1,976	2,828	+ 852	36%	39%	+ 3%

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a. Data from weighted sample and from *An Evaluation of NYSILL, op. cit.*, Table 3.15.

b. No longer a part of the referral network.

c. Average for two months only; joined network September 21, 1967.

Table C.15

ELAPSED TIME TO PROCESS NYSILL REQUESTS: SELECTED DATA

	March 1967 to November 1967	November 1967 to June 1968
State Library to First Referral Library	11.2	6.5
First Referral Library to Second Referral Library	14.4	7.1

Table C.16

VARIATIONS IN ELAPSED TIME AT REFERRAL LIBRARIES, NOVEMBER 1967 TO JUNE 1968[a]

Elapsed Time in Days for:	For Unfilled Requests: Average Number of Days to Receipt by Second Referral Library, When First Library Is the One Named Below (Base in Parentheses)	
	March 1967 to November 1967	November 1967 to June 1968
All Libraries	14.4 (3,902)	7.1 (4,325)
All Area Referral Centers:	14.5 (3,834)	7.5 (3,225)
Brooklyn	22.3 (1,035)	10.7 (800)
Buffalo-Erie	10.8 (1,482)	7.9 (1,175)
Monroe County	12.5 (1,317)	5.4 (1,250)
All Subject Referral Centers:	12.3 (68)	5.8 (1,100)
Columbia	13.4[c] (8)	6.6 (200)
Cornell	10.4[c] (19)	6.6 (200)
Engineering Societies	3.8[c] (4)	5.0[c] (50)
Metropolitan Museum[b]	- (none)	-[b]
N.Y. Academy of Medicine	19.0[c] (5)	4.8[c] (100)
N.Y. Public Library	14.1 (28)	5.4[c] (125)
N.Y. University	- (none)	5.0[c] (25)
Teachers College	6.2[c] (4)	3.8[c] (125)
Union Theological Seminary	- (none)	6.4 (275)

a. Data from weighted sample and from Table 4.2, *An Evaluation of NYSILL, op. cit.*

b. No longer a part of the NYSILL network.

c. Unreliable: based on less than 20 cases (unweighted cases for the sample).

Table C.17

ESTIMATED COSTS OF FILLING REFERRED NYSILL REQUESTS, NOVEMBER 1967 TO JUNE 1968[a]

Referral Libraries	Payments from the State			Cost per Unit Filled			Cost, March to Nov. 1967
	Unit Fees[b]	Grants[c]	Total	Fees Only	Grants Only	Total	
Area Referral Libraries							
All Libraries	$12,525.00	$13,797.81	$ 26,322.81	$ 5.96	$ 6.57	$12.53	$11.33
Brooklyn Public Library	4,200.00	4,729.91	8,929.91	4.67	5.26	9.93	10.23
Buffalo and Erie County Public Library	4,750.00	4,696.79	9,446.79	5.94	5.87	11.81	9.69
Monroe County Library System	3,575.00	4,371.11	7,946.11	8.94	10.93	19.87	17.06
Subject Referral Libraries							
All Libraries	40,087.50	34,329.97	74,417.47	7.03	6.02	13.05	19.79
Columbia University	7,887.50	5,814.89	13,702.39	7.17	5.29	12.46	22.42
Cornell University	8,500.00	7,748.98	16,248.98	6.18	5.64	11.82	22.33
Engineering Societies Library	1,675.00	3,129.17	4,804.17	11.17	20.86	32.03	21.17
The Metropolitan Museum of Art[d]	-[d]	-[d]	-[d]	-[d]	-[d]	-[d]	52.95
The New York Academy of Medicine	5,800.00	2,463.09	8,263.09	6.44	2.74	9.18	11.85
The New York Public Library Research Libraries	6,675.00	8,832.74	15,507.74	5.80	7.68	13.48	15.67
New York University	1,675.00	2,285.36	3,960.36	11.17	15.24	26.41	20.63
Teachers College	2,525.00	2,021.37	4,546.37	12.62	10.11	22.73	38.58
Union Theological Seminary	5,350.00	2,034.37	7,384.37	7.93	3.01	10.94	21.21
Total, All Libraries	$52,612.50	$48,127.78	$100,740.28	$ 6.75	$ 6.17	$12.92	$15.80

a. Data from weighted sample, State Library records, and *An Evaluation of NYSILL, op. cit.*, Table 6.1.

b. Derived from Table 13: Area Libraries allowed $1.00 for every referral plus $2.00 for each item filled; Subject Libraries allowed $2.50 for every referral plus $2.00 for every item filled.

c. As supplied by the State Library.

d. No longer part of NYSILL.

material by patron: these were obtained via a postcard inserted with filled requests in the earlier study. For the period under consideration, use of the postcard was discontinued; thus no new estimates are possible for time lapses between receipt of requests at the State Library or at a referral center and receipt of filled materials at an orginating library.

During the period monitored, the State Library did retain data on time consumed for items filled at the State Library. No attempt was made to handle these data, however. This time period refers only to processing at the State Library and thus is not equivalent to any points analyzed in the previous study.

Table C.15 presents data on elapsed time in NYSILL for March-November 1967 compared with available new estimates as enumerated above. It is clear that time consumption for certain crucial points in the system has been cut in half since the first phase of monitoring. These known reductions apply only to referrals, however. Without additional data it is difficult to see what major effects may have taken place on on overall time consumption for all requests, from originating library to patron receipt. Probably actual overall elapsed times have been cut considerably as well.

Further evidence of the effort which has been expended to speed the handling of NYSILL requests is given in Table C.16 which shows time from receipt of an item at a given referral library until it is received by a second referral library. In every instance which is supported by sufficient cases, these times have been substantially reduced.

Costs for Referred Items

Estimated unit costs for referrals have been prepared on the same basis used previously and are presented in Table C.17. The outlay of funds has gone up but the referral volume has increased even more, so that unit costs have actually gone down by about three dollars in this latest phase of NYSILL. All of this improvement comes from the performance of the subject referral centers; costs at Buffalo-Erie and at the Monroe County libraries have increased in recent months. Among the subject centers, however, only the Engineering Societies Library and New York University showed increases, while all others dropped in per-unit cost. All of these trends can be attributed to volume changes and to improvements at some libraries in their ability to fill requests.

SUMMARY

(1) Even allowing for seasonal variations, volume appears to be increasing in NYSILL. Much of

this increase consists of items which were not eligible for referral.

(2) The use of NYSILL by different kinds of patrons does not seem to have changed in any radical way since 1967. However, the codes used for patron status continue to introduce ambiguity into any analysis of the service. These problems could be met by using the present code of "ineligible" to refer only to patron status, not to requests. Low-level requests which are inappropriate for NYSILL could be identified in a routing code, such as "fiction, do not refer."

(3) No major changes have been discovered in the mixture of originating libraries using NYSILL; nor have any radical alterations appeared in the role of the various request transmission sites.

(4) The State Library continues to fill about 44% of all the requests which it receives. Of the remainder, more are being sent on to the referral centers.

(5) The use of subject referral centers for the first referral has increased markedly, resulting in substantial improvements in the handling of requests.

(6) The referral network as a whole is filling more of the items it receives; this is especially true of the subject referral centers.

(7) Both area and subject referral centers are processing requests more quickly.

(8) Costs for referred requests have been reduced.

These trends would seem to compliment the changes anticipated with the institution of NYSILL, Phase II and would indicate that further improvements in overall performance should be expected in the future.

Sincerely yours,

Eugene Vorhies, Jr.

Appendix D

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Appendix E

A PARTIAL LIST OF LIBRARIES USING NYSILL

The following list names each institution originating at least two of the interlibrary loans analyzed in the 10% sample of NYSILL requests during October-December 1968. Libraries with only one case in the sample are grouped under "others." Three institutions submitted more than one case but could not be explicitly identified; these loans are also grouped with the "others."

Owing to the sampling procedure, this is not a complete list of all libraries using the system. The probability of a library being named here is equal to one-tenth the number of items submitted during the time period; thus small libraries submitting less than 10 items have less than good odds of inclusion.

Separate subtotals are provided for each request transmission site. Cases in the Rochester or Buffalo regional networks are not included unless they also happened to turn up in the NYSILL sample.

Library	No. Cases
Brooklyn Public Library: as request transmission site, serves itself only. Total volume in sample: 6 requests	
Brooklyn Public Library and branches	6
Buffalo and Erie County Library System: as request transmission site, served 12 institutions in sample. Total volume: 49 requests	
Buffalo and Erie County Public Library, branches, and BEC Library System	28
SUNY State University College at Buffalo	3
Canisius College	9
Other Libraries--nine institutions	9

Library:	No. Cases
Chautauqua-Cattaraugus Library System: as request transmission site, served 12 institutions in sample. Total volume: 57 requests	
Chautauqua-Cattaraugus Library System (Jamestown)	13
Clymer-French Creek Free Library	2
Olean Public Library	5
Prendergast Free Library (Jamestown)	29
Others--eight institutions	8
Chemung-Southern Tier Library System: as request transmission site, served 14 institutions in sample. Total volume: 53 requests	
Chemung-Southern Tier Library System (Corning)	25
Corning Public Library	3
Davenport Public Library (Bath)	3
Howe Public Library (Wellsville)	2
Steele Memorial Library (Elmira)	11
Others: nine institutions	9
Clinton-Essex-Franklin Library System: as request transmission site, served 9 institutions in sample. Total volume: 29 requests	
Clinton-Essex-Franklin Library System (Plattsburgh)	14
Plattsburgh Public Library	3
Saranac Lake Free Library	6
Others: six institutions	6

Library	No. Cases
Finger Lakes Library System: as request transmission site, served 15 institutions in sample. Total volume: 56 requests	
Finger Lakes Library System (Ithaca)	27
Groton Public Library	2
Hazard Library (Poplar Ridge)	5
Mynderse Library (Seneca Falls)	3
Peck Memorial Library (Marathon)	2
Seymour Library (Auburn)	5
Spencer Library	2
Tompkins County Public Library (Ithaca)	2
Waverly Free Library	2
Others: six institutions	6
Four County Library System: as request transmission site, served 24 institutions. Total volume: 80 requests	
Four County Library System (Binghamton)	13
Binghamton Public Library	8
Cherry Valley Memorial Library	2
Edmeston Free Library	4
Guernsey Memorial Library (Norwich)	5
Huntington Memorial Library (Oneonta)	4
Johnson Memorial Library (Endicott)	10
Moore Memorial Library (Greene)	3
New Berlin Library	2
Ogden Free Library (Walton)	2
Roxbury Public Library	2

Library	No. Cases
Four County Library System (continued)	
Sherburne Public Library	3
Sidney Public Library	6
South New Berlin Free Library	3
Vestal Free Library	2
Village Library of Cooperstown	3
Others: eight institutions	8
Mid-Hudson Libraries: as request transmission site, served 46 institutions. Total volume in sample: 209 requests	
Mid-Hudson Libraries (Poughkeepsie)	14
Adriance Memorial Library (Poughkeepsie)	18
Bard College (Annandale-on-Hudson)	25
Blodgett Memorial Library (Fishkill)	4
Brewster Public Library	3
Catskill Public Library	9
Chatham Public Library	5
Elting Memorial Library (New Paltz)	2
Ferrocube Corporation (Saugerties)	6
Fishkill Plains Community Library	2
Greenville Public Library	5
Grinnell Library Association (Wappingers Falls)	4
Haines Falls Free Library	3
Highland Free Library	5
Howland Circulating Library Company	4
Hudson Area Association Library	5
Hurley Public Library	3

Library	No. Cases
Mid-Hudson Libraries (continued)	
Kent Reading Center (Carmel)	8
Kinderhook Memorial Library	2
Kingston Area Library	14
Livingston Free Library	2
Mahopac Library Association	2
Marist College	6
Millerton Free Library	2
Pawling Free Library	3
Phoenicia Library Association	3
Pine Plains Free Library	5
Pleasant Valley Free Library	2
Putnam Valley Free Library	4
Red Hook Public Library	2
St. Francis Hospital (Poughkeepsie)	2
Saugerties Public Library	3
Windham Public Library	2
Vassar Brothers Hospital (Poughkeepsie)	3
Vassar College	16
Others: 11 institutions	11
Mid-York Library System: as request transmission site, served 29 institutions in sample. Total volume: 98 requests	
Mid-York Library System (Utica)	22
Canastota Public Library	4
Cazenovia Free Library	2

Library	No. Cases
Mid-York Library System	
Colgate University	2
Earlville Free Library	2
Erwin Library and Institute (Boonville)	4
Frankfort Free Library	2
Herkimer Free Library	4
Jervis Library Association (Rome)	12
Middleville Free Library	2
Newport Free Library	3
Oneida Library	7
Utica Public Library	15
Vernon Public Library	2
Others: fifteen institutions	15

Mohawk Valley Library Association: as request transmission site, served an unknown number of affiliates; exact institutions in this sample could not be identified because this system handles all delivery of items, and therefore does not supply originating library data. Total number of requests in sample: 60

Mohawk Valley Library Association and affiliates	60

Nassau Library System: as request transmission site, served 48 institutions in sample. Total volume: 268 requests.

Nassau Library System (Garden City)	22
Baldwin Public Library	4
Bayville Free Library	2
Bellmore Memorial Library	2
Bethpage Public Library	6

Library	No. Cases
Nassau Library System (continued)	
Bryant Library (Roslyn)	9
East Meadow Public Library	22
East Rockaway Free Library	2
Elmont Public Library	8
Farmingdale Public Library	4
Floral Park Public Library	9
Freeport Memorial Library	2
Garden City Public Library	3
Glen Cove Public Library	5
Great Neck Library	2
Hempstead Public Library	8
Hewlett-Woodmere Public Library	2
Hicksville Public Library	7
Hillside Public Library (New Hyde Park)	3
Hofstra University	9
Island Park Public Library	3
Levittown Public Library	14
Long Beach Public Library	2
Manhasset Public Library	7
Massapequa Public Library	3
Merrick Library	8
Mineola Memorial Library	2
North Bellmore Public Library	2

Library	No. Cases
Nassau Library System (continued)	
Oceanside Free Library	6
Oyster Bay-East Norwich Public Library	2
Peninsula Public Library	8
Plainedge Library (Seaford)	9
Plainview Public Library	15
Port Washington Public Library	7
Rockville Centre Public Library	3
Seaford Public Library	2
Shelter Rock Public Library (Albertson)	10
Syosset Public Library	8
Uniondale Public Library	4
Valley Stream Public Library	4
West Hempstead Public Library	4
Westbury Memorial Public Library	7
Williston Park Public Library	2
Others: five institutions	5
Nioga Library System: as request transmission site, served 17 institutions. Total volume in sample: 33 requests.	
Nioga Library System (Niagara Falls)	6
Community Free Library (Holley)	2
Niagara Falls Public Library	3
North Tonawanda Public Library	4
Richmond Memorial Library (Batavia)	4
Swan Library (Albion)	3
Others: eleven institutions	11

Library	No. Cases
North Country Library System: as request transmission site, served 17 institutions. Total volume in sample: 34 requests	
North Country Library System (Watertown)	9
Canton Free Library	2
Flower Memorial Library (Watertown)	3
Lowville Free Library	3
Mexico Public Library	3
Ogdensburg Public Library	2
Potsdam Public Library	2
Others: ten institutions	10
Onondaga Library System: as request transmission site, served 11 institutions. Total volume in sample: 43 requests	
Onondaga Library System (Syracuse)	18
Liverpool Public Library	2
North Syracuse Free Library	3
Syracuse Public Library and Branches	13
Others: 7 Institutions	7
Pioneer Library System: as request transmission site, served 31 institutions. Total volume in sample: 91	
Pioneer Library System (Rochester)	13
Dansville Public Library	2
Eastman Kodak Business Library	4
Fairport Public Library	2
Greece Public Library (Rochester)	2
Rochester General Hospital	4
Rochester Public Library & Branches	11

Library	No. Cases
Pioneer Library System (continued)	
Saint John Fisher College	3
SUNY: College at Brockport	6
SUNY: College at Geneseo	12
University of Rochester	7
Webster Public Library	4
Xerox Corporation Technical Information Service	3
Others: 18 Institutions	18
Ramapo-Catskill Library System: as request transmission site, served 45 institutions. Total volume in sample: 183	
Ramapo-Catskill Library System	27
Blauvelt Free Library	4
Bloomingburg Free Library	4
Crawford Memorial Library (Monticello)	3
Delaware Free Library (Collicoon)	4
Dominican College of Blauvelt	4
Ellenville Public Library	3
Finklestein Memorial Library (Spring Valley)	16
Florida Public Library	2
Goshen Library & Historical Society	3
Haverstraw Rehabilitation Hospital	2
Liberty Public Library	3
Livingston Manor Free Library	2
Louise Memorial Library (Walden)	2
Monroe Free Library	5
Mount St. Mary College	2
Nanuet Public Library	4

Library	No. Cases
Ramapo-Catskill Library System (continued)	
New City Free Library	11
Newburgh Free Library	6
Nyack Free Library	5
Orangeburg Free Library	4
Palisades Free Library	5
Pearl River Free Library	8
Piermont Public Library	3
Port Jervis Free Library	2
Rockland County Community College	4
Suffern Free Library	11
Sullivan County Community College	5
Thrall Library (Middletown)	2
Tompkins Cove Public Library	3
Tuxedo Park Free Library	4
United States Military Academy (West Point)	3
West Nyack Free Library	4
Wisner Memorial Library (Warwick)	2
Others: 11 Institutions	11
Southern Adirondack Library System: as request transmission site, served 18 institutions. Total volume in sample: 64	
So. Adirondack Library System (Saratoga Springs)	24
Ballston Community Library (Burnt Hills)	4
Corinth Free Library	4
Crandall Library (Glens Falls)	8

Library	No. Cases
Southern Adirondack Library System (continued)	
Euston Library (Greenwich)	2
Hudson Falls Free Library	3
Mechanicsville District Public Library	3
Saratoga Springs Public Library	3
Stillwater Free Library	2
Waterford Public Library	3
Others: 8 Institutions	8
Suffolk Cooperative Library System: as request transmission site, served 37 institutions. Total volume in sample: 341	
Suffolk Cooperative Library System, including bookmobiles (Bellport)	62
Adelphi Suffolk College	7
Bay Shore Public Library (Brightwaters)	16
Brentwood Public Library	10
Clark Memorial Library (Setauket)	8
Copiague Memorial Public Library	4
Cutchogue Free Library	4
Deer Park Public Library	6
East Islip Public Library	8
East Northport Public Library	6
Half Hollow Hills Community Library (Dix Hills)	21
Huntington Public Library	10
Islip Public Library	4
Lindenhurst Memorial Library	12
Middle Country Public Library (Selden)	9
North Babylon Public Library	5

Library	No. Cases
Suffolk Cooperative Library System (continued)	
Northport Public Library	10
Patchogue Library	26
Riverhead Free Library	12
Rogers Memorial Library (Southampton)	10
Sachem Public Library (Holbrook)	5
Sayville Library	3
Smithtown Library	25
South Huntington Public Library (Huntington Station)	10
Southold Free Library	4
Suffolk Community College	5
SUNY: Stonybrook	17
Terryville Public Library	2
West Islip Public Library	12
Others: 8 Institutions	8
Upper Hudson Library Federation: referrals included in State Library departmental figures, below.	
Westchester Library System: as request transmission site, served 22 institutions. Total volume in sample: 72	
Westchester Library System (Mount Vernon)	7
Chappauqua Library	2
Dobbs Ferry Public Library	3
Greenburgh Public Library (White Plains)	5
Hart Memorial Library (Shrub Oak)	6
Hastings-on-Hudson Public Library	7
Larchmont Public Library	4
Mamaroneck Free Library	5

Library	No. Cases
Westchester Library System (continued)	
Mount Pleasant Public Library	6
Mount Vernon Public Library	3
Ossining Public Library	3
Scarsdale Public Library	3
Yonkers Public Library	9
Others: 9 Institutions	9
New York State Library: as request transmission site, served own divisions, referrals from the Upper Hudson Library Federation, mail requests from both within and outside the State. Total volume in sample: 143	
Departments: Science & Technology	24
Medicine	37
Education	5
Periodicals	24
Reference	49
Law	4
Other Transmission Sites:	
Brookhaven National Laboratories: as request transmission site, served self only. Total volume in sample: 10	10
Clarkson Technical College: as request transmission site, served self only. Total volume in sample: 28	28
Cornell University: as request transmission site, served self only. Total volume in sample: 6	6
Hamilton College: as request transmission site, served 3 institutions. Total volume in sample: 9	
Hamilton College	7
Others: 2 Institutions	2

Library	No. Cases
New York University: as request transmission site, served self only. Total volume in sample: 1	1
SUNY: Albany: as request transmission site, served self only. Total volume in sample: 124	124
SUNY: Binghamton: as request transmission site, serves self only. Total volume in sample: 1	1
SUNY: Buffalo: as request transmission site, served self only. Total volume in sample: 28	28
SUNY: Potsdam: as request transmission site, served 7 institutions. Total volume in sample: 75	
SUNY-Potsdam	60
Adirondack Museum	3
St. Lawrence University	8
Others: 4 Institutions	4
Union College: as request transmission site, served self only. Total volume in sample: 133	133
University of Rochester: as request transmission site, served self, plus referrals from regional network. Total volume in sample: 14	14